Change Management in the Traditional and Semantic Web

(EXTENDED EXPERIMENTS)

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February, 2015

Chapter 1

OAEI Dataset Extended Analysis for Equivalence Violations

1.1 Analysis of Ontology Matchers Alignments (Extended)

More precisely, Tables 1.1-1.36 show the data splitted by matcher and aggregated by track, while the opposite order holds for Tables 1.37-1.41.

From Tables 1.37-1.41 we can see that the five matchers with least percentage of problematic alignments (among those having at least one of them), grouping by track, are ASMOV ($\sim$6%), Autom ($\sim$15%), Lily ($\sim$41%), LogMap ($\sim$5%), LogMapLt ($\sim$5%), and Optima ($\sim$80%). The grouping track for all these matchers is *conference* track, confirming the impact of input ontologies size on the degree of problematicity.

However, not all the alignments for *conference* track have a low degree of problematicity, as for Medley matcher (100% of the aligmments have an average number of problematic SCCs equal to $\sim$6% for an average small size of alignments, composed by $\sim$71 mappings each. In addition, the average degree of problematicity is also quite high, around $\sim$39%. By analyzing the number of 1-1 mappings of Medley ranks among the five matchers with the lowest value (along with Ase, Autom, RIMOM, XMapGen).

The worst performing matcher, considering alignments for *conference* track, is RIMOM, with 100% of problematic alignments. RIMOM has the lowest percentage value for 1-1 mappings, and the highest average alignment size.

Another relevant example of nontrivial correlation concerns WMatch matcher (contributing to the analysis exclusively with alignments for the *conference* track). Even if the percentage of 1-1 mappings is quite low ($\sim$75%), it is the only matcher without problematic alignments (it is

therefore not included in any table), due to the small size of the input ontologies and that of the generated alignments (on average 14, the smallest in the whole set of alignments for the *conference* track).

As a conclusion, our hypothesis that the percentage 1-1 elements, input ontologies and alignment size are positively correlated with the degree of problematicity seems to be confirmed by these additional views over the experimental data.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	25.52(0.9)	2.57(2.94)	0.67(0.79)	97.54(2.85)	13,101.33(8,358.55)	0.11(0.09)	59(51.88)	1(0.53)	100(0)	3	3
largebio_small	22.09(1.86)	9.01(7.9)	2.09(1.85)	91.19(7.87)	14,786(10,488.16)	2.88(2.8)	268.33(320.63)	1.19(1.76)	100(0)	3	3

Table 1.1: Measures of interest for AML-BKR, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	26.09(1.11)	2.9(3.21)	0.78(0.88)	97.2(3.11)	13,578.67(8,589.8)	0.13(0.11)	68.67(62.08)	1.34(1.05)	100(0)	3	3
largebio_small	22.72(1.21)	10.78(9.38)	2.52(2.21)	89.44(9.37)	15,494.67(11,004.87)	3.54(3.38)	329.33(394.84)	1.47(2.18)	100(0)	3	3

Table 1.2: Measures of interest for AML-BK, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	26.35(1.22)	29.72(6.66)	7.88(2.14)	70.38(6.61)	18,794(14,225.53)	2.26(2.05)	1,253.33(1,127.3)	13.33(11.82)	100(0)	3	3
largebio_small	26.25(1.3)	29.66(7.6)	7.85(2.41)	70.43(7.54)	19,019.33(14,558.44)	11.52(0.73)	1,275.33(1,186.07)	5.21(6.83)	100(0)	3	3

Table 1.3: Measures of interest for AML-BKUR, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	26.46(1.02)	32.35(7.42)	8.61(2.3)	67.75(7.37)	19,830(14,842.99)	2.54(2.28)	1,388(1,224.36)	14.6(12.56)	100(0)	3	3
largebio_small	26.42(1.09)	32.87(8.4)	8.74(2.58)	67.24(8.35)	20,058.67(15,225.02)	13.23(0.37)	1,415.33(1,281.87)	5.76(7.49)	100(0)	3	3

Table 1.4: Measures of interest for AML-BKU, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	25.79(1.37)	1.78(1.76)	0.47(0.48)	98.31(1.69)	12,326(8,333.74)	0.08(0.07)	43.33(45.24)	0.83(0.47)	100(0)	3	3
largebio_small	22.01(1.8)	7.98(6.88)	1.84(1.6)	92.23(6.84)	14,391.33(10,196.15)	2.45(2.3)	237.33(289.28)	1.06(1.57)	100(0)	3	3

Table 1.5: Measures of interest for AML-R, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	0.95(0)	0.24(0)	99.05(0)	2,956(0)	0.35(0)	7(0)	0.02(0)	100(0)	1	2
largebio_big	25.17(1.77)	8.67(8.65)	2.11(2.03)	91.43(8.61)	13,639.33(8,318.84)	0.5(0.67)	272.83(377.02)	3.42(4.1)	100(0)	6	6
largebio_small	23.2(0.95)	12.01(7.79)	2.83(1.84)	88.2(7.75)	15,421(10,001.55)	3.94(2.58)	404.17(442.2)	1.75(2.35)	100(0)	6	6
library	32.44(12.67)	56.52(17.06)	19.69(13.64)	44.56(16.03)	7,812.67(1,566.58)	21.16(9.51)	661.67(107.87)	41.15(68.89)	99.94(0.1)	3	3

Table 1.6: Measures of interest for AML, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	1(0)	0.25(0)	99(0)	2,410(0)	0.3(0)	6(0)	0.03(0)	100(0)	1	1
conference	25.64(2.31)	19.28(8.43)	4.9(2.06)	80.72(8.43)	38.92(11.74)	2.74(0.8)	1.23(0.44)	0.01(0)	100(0)	13	21
largebio_big	25.45(0.04)	12.61(14.84)	3.21(3.77)	87.49(14.98)	6,353(1,921.92)	1.2(1.63)	212.5(266.58)	0.67(0.29)	100(0)	2	2
largebio_small	23.84(4.27)	10.66(8.83)	2.33(1.53)	90.73(6.53)	13,053.33(9,482.08)	3.79(4.11)	205(144.57)	21.37(34.04)	99.87(0.22)	3	3
library	88.05(0)	94.82(0)	83.5(0)	6.68(0)	34,470(0)	45.86(0)	220(0)	182.45(0)	96.36(0)	1	1

Table 1.7: Measures of interest for Aroma, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25.79(1.95)	6.34(4)	1.69(1.09)	93.91(3.98)	2,918(205.61)	2.14(1.32)	34(20.77)	0.06(0.03)	100(0)	9	12
conference	25(0)	10.76(3.8)	2.69(0.95)	100(0)	41.61(14.12)	3.95(1.67)	1(0)	0.01(0)	100(0)	18	300

Table 1.8: Measures of interest for ASMOV, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
conference	35.94(1.46)	61.93(4.2)	22.22(0.69)	38.07(4.2)	30(9.17)	5.04(1.45)	1(0)	0.01(0.01)	100(0)	3	21
largebio_small	26.62(0)	22.22(0)	5.91(0)	78.33(0)	3,618(0)	5.21(0)	115(0)	60.25(0)	99.13(0)	1	1

Table 1.9: Measures of interest for Autom, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	18.97(0)	3.39(0)	0.64(0)	100(0)	3,422(0)	1.94(0)	20(0)	0.04(0)	100(0)	1	1
conference	23.18(3.13)	16.09(7.8)	3.59(1.42)	100(0)	38.6(10.83)	4.11(3.09)	1.3(0.67)	0.01(0)	100(0)	10	21

Table 1.10: Measures of interest for CIDER-CL, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	0.15(0)	0.04(0)	99.77(0)	2,606(0)	0.07(0)	1(0)	0.01(0)	100(0)	1	1
library	18.87(0)	1.61(0)	0.3(0)	100(0)	6,570(0)	0.76(0)	20(0)	0.07(0)	100(0)	1	1

Table 1.11: Measures of interest for Codi, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	24.47(0.4)	8.19(2.86)	2(0.66)	91.59(2.84)	2,720(311.77)	2.72(1.25)	51.33(23.09)	0.08(0.03)	100(0)	3	3
largebio_big	25.43(1.76)	14.97(9.09)	3.73(2.26)	85.2(9.25)	13,883.33(8,788.02)	1.13(1.03)	511.33(554.95)	24.74(36.45)	99.97(0.04)	6	6
largebio_small	24.11(1.49)	11.16(6.54)	2.62(1.49)	88.88(6.52)	11,231.67(7,708.11)	3.18(2.44)	280.33(257.45)	1.25(1.55)	100(0)	6	6
library	56.83(0)	75.67(0)	43(0)	26.59(0)	10,126(0)	32.19(0)	515(0)	120.71(0)	99.81(0)	1	1

Table 1.12: Measures of interest for Gomma, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	24.01(0)	11.49(0)	2.76(0)	88.31(0)	3,080(0)	4.17(0)	78(0)	0.12(0)	100(0)	1	1
largebio_big	25.35(1.53)	38.21(18.69)	9.71(4.69)	61.87(18.63)	20,916(13,072.71)	3.96(2.17)	1,793.33(1,423.8)	31.86(39.78)	99.97(0.06)	3	3
largebio_small	24.51(0.78)	21.4(4.52)	5.27(1.26)	78.67(4.55)	15,823.33(9,525.47)	8.41(4.45)	651.33(325.11)	2.21(1.84)	100(0)	3	3

Table 1.13: Measures of interest for GommaBK, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	25.51(1.73)	38.85(18.27)	9.94(4.61)	61.26(18.18)	21,162(13,241.35)	3.28(2.34)	1,822.67(1,426.91)	59.08(54.23)	99.95(0.08)	3	3
largebio_small	24.51(0.78)	21.4(4.52)	5.27(1.26)	78.67(4.55)	15,823.33(9,525.47)	8.41(4.45)	651.33(325.11)	2.21(1.89)	100(0)	3	3

Table 1.14: Measures of interest for GommaSBK, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_small	36.46(1.87)	59.37(1.46)	21.66(1.64)	40.72(1.47)	7,360(1,779.08)	10.76(7.2)	319.5(84.15)	130.32(71.56)	97.68(2.16)	2	4
library	62.64(0)	83.39(0)	52.24(0)	18.52(0)	12,032(0)	39.08(0)	500(0)	121.02(0)	99.8(0)	1	2

Table 1.15: Measures of interest for Hertuda, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	28.28(0.56)	10.46(6.6)	2.98(1.94)	89.63(6.51)	8,223.33(8,200.18)	0.29(0.24)	156.33(132.3)	1.88(1.4)	100(0)	3	3
largebio_small	26.8(1.07)	4.34(2.2)	1.15(0.55)	95.77(2.14)	7,604.67(7,989.51)	0.65(0.38)	97.67(132.93)	0.46(0.68)	100(0)	3	3
library	26.32(0)	10.05(0)	2.65(0)	91.01(0)	378(0)	0.19(0)	9(0)	0.04(0)	100(0)	1	1

Table 1.16: Measures of interest for IAMA, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	17.43(4.49)	2.27(0.45)	0.38(0.03)	100(0)	3,286.67(1,416.25)	1.39(0.77)	9.67(4.04)	0.09(0.09)	100(0)	3	3
conference	23.75(7.25)	16.48(13.16)	3.67(2.55)	100(0)	62.98(25.56)	8.85(9.4)	1.37(0.54)	0.01(0.02)	100(0)	43	105

Table 1.17: Measures of interest for Lily, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	24.61(0.21)	19.3(2.48)	4.75(0.6)	80.73(2.55)	14,724.33(10,596.93)	1.56(0.77)	666(531.07)	6.07(5.64)	100(0)	3	3
largebio_small	24.09(0.57)	20.24(4.75)	4.88(1.17)	79.84(4.83)	14,949.33(10,959.15)	6.84(1.39)	708.67(631.24)	2.69(3.44)	100(0)	3	3

Table 1.18: Measures of interest for LogMap2Noe, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	24.45(0)	17.49(0)	4.28(0)	82.22(0)	3,110(0)	6.27(0)	110(0)	0.19(0)	100(0)	1	1
largebio_big	24.68(0.15)	28.83(5.33)	7.12(1.36)	71.29(5.38)	15,170.33(9,168.86)	1.63(0.74)	890.33(443.54)	9.49(5.13)	100(0)	3	3
largebio_small	24.16(0.43)	25.29(6.61)	6.12(1.62)	74.97(6.67)	15,792(11,738.34)	8.92(2.6)	860.67(742.61)	3.26(4.16)	100(0)	3	3

Table 1.19: Measures of interest for LogMapBio, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	24.61(0.17)	20.22(3.33)	4.98(0.82)	79.93(3.35)	14,008.67(9,663.85)	1.18(0.93)	676.33(545.57)	7.14(5.53)	100(0)	3	3
largebio_small	24.15(0.65)	20.71(5.25)	5.01(1.32)	79.49(5.3)	15,299.33(11,518.75)	7.07(1.37)	750.67(698.12)	2.86(3.72)	100(0)	3	3

Table 1.20: Measures of interest for LogMapBK, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	24.94(0.1)	1.75(1.73)	0.43(0.43)	94.78(5.08)	9,217.67(6,133.99)	0.09(0.13)	55.67(79.1)	1.18(1.21)	100(0)	3	3
largebio_small	25.02(0.04)	1.98(2.27)	0.5(0.57)	94.05(6.49)	9,472(6,744)	0.4(0.37)	69(105.7)	0.36(0.54)	100(0)	3	3
library	25.42(0)	4.03(0)	1.03(0)	81.78(0)	2,925(0)	0.59(0)	29(0)	0.08(0)	100(0)	1	1

Table 1.21: Measures of interest for LogMapC, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	7.05(0.1)	1.76(0.02)	92.69(0.1)	2,307.33(1.15)	1.97(0.03)	37.67(0.58)	0.07(0.01)	100(0)	3	3
conference	25(0)	16.67(0)	4.17(0)	83.33(0)	24(0)	2.65(0)	1(0)	0.01(0)	100(0)	3	63
largebio_big	26.57(1.01)	31.52(18.3)	8.52(5.05)	68.61(18.29)	12,038.22(10,339.19)	1.96(1.57)	824.56(728.34)	35.74(48.42)	99.93(0.11)	9	9
largebio_small	24.46(0.43)	15.23(7.7)	3.75(1.94)	84.9(7.69)	10,055.78(8,923.14)	3.74(2.42)	434.44(489.86)	1.94(2.56)	100(0)	9	9
library	42.57(0.12)	68.14(0.26)	29(0.13)	33.3(0.28)	8,192(24.58)	25.42(0.15)	622.33(2.52)	121.13(0.34)	99.84(0)	3	3

Table 1.22: Measures of interest for LogMapLt, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	23.99(0.02)	10.6(0.15)	2.54(0.04)	89.23(0.1)	2,805(5.2)	3.55(0.05)	65(0)	0.1(0.01)	100(0)	3	3
conference	25(0)	15.38(0)	3.85(0)	84.62(0)	26(0)	2.73(0)	1(0)	0.01(0)	100(0)	3	63
largebio_big	24.51(0.3)	18.88(3.48)	4.63(0.88)	81.21(3.53)	13,858.89(8,227.81)	1.24(0.77)	631.22(452.92)	6.4(4.78)	100(0)	9	9
largebio_small	24.05(0.64)	19.63(5.05)	4.73(1.28)	80.54(5.06)	15,045.89(9,817.76)	6.57(1.31)	713.44(596.47)	2.77(3.2)	100(0)	9	9
library	25.34(0.07)	45.95(2.12)	11.64(0.55)	54.48(2.14)	5,835(275.98)	13.09(1.22)	585(56.36)	1.14(0.11)	100(0)	4	4

Table 1.23: Measures of interest for LogMap, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	14.84(1.34)	2.04(0.92)	0.3(0.11)	100(0)	4,748(1,026.72)	1.57(0.42)	10.5(0.71)	0.03(0)	100(0)	2	3
conference	21.67(5.22)	9.02(4.54)	1.82(0.84)	100(0)	91.29(36.58)	5.76(3.52)	1.38(0.74)	0.01(0)	100(0)	34	63
largebio_small	13.17(6.68)	6.5(5.02)	0.61(0.26)	100(0)	9,244(4,707.32)	5.16(4.19)	34.75(34.87)	30.1(34.58)	97.3(3.13)	4	4
library	96.75(0)	13.79(0)	13.34(0)	100(0)	8,922(0)	9.82(0)	13(0)	160.26(0)	92.31(0)	1	1

Table 1.24: Measures of interest for MaasMatch, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	0.33(0)	0.08(0)	100(0)	2,424(0)	0.13(0)	2(0)	0.02(0)	100(0)	1	2
largebio_big	23.86(0)	1.7(0)	0.41(0)	100(0)	5,168(0)	0.17(0)	19(0)	0.18(0)	100(0)	1	1
largebio_small	24.1(0.89)	1.67(0.82)	0.41(0.21)	100(0)	9,696.67(8,470.52)	0.48(0.24)	41(34.04)	0.21(0.23)	100(0)	3	3
library	24.04(0)	4.71(0)	1.13(0)	100(0)	2,208(0)	0.8(0)	24(0)	0.08(0)	100(0)	1	1

Table 1.25: Measures of interest for MapSSS, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_small	24.84(0.76)	5.55(4.3)	1.4(1.1)	94.77(4.45)	6,599.5(3,499.32)	1.97(1.71)	73.25(47.81)	0.18(0.06)	100(0)	4	4
library	30.86(0)	51.22(0)	15.81(0)	49.37(0)	7,794(0)	18.6(0)	738(0)	2.13(0)	100(0)	1	1

Table 1.26: Measures of interest for ODGOMS, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	25(0)	0.14(0)	0.04(0)	99.86(0)	2,806(0)	0	1(0)	0.3(0)	100(0)	1	1
largebio_small	30.52(7.8)	17.83(22.43)	6.31(8.24)	82.28(22.38)	8,640(7,919.6)	0.81(0.79)	55.5(4.95)	60.29(84.63)	95.19(6.8)	2	3

Table 1.27: Measures of interest for OMReasoner, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	34.27(0)	13.78(0)	4.72(0)	86.32(0)	2,076(0)	2.56(0)	36(0)	3.09(0)	100(0)	1	1
conference	25(0)	13.76(3.04)	3.44(0.76)	89.18(7.71)	35.5(5.97)	2.74(1.02)	1.25(0.5)	0	100(0)	4	21
library	28.87(0)	42.17(0)	12.17(0)	58.41(0)	1,380(0)	2.67(0)	100(0)	0.42(0)	100(0)	1	1

Table 1.28: Measures of interest for Optima, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	5.33(0)	1.33(0)	94.67(0)	1,950(0)	1.09(0)	20(0)	0.04(0)	100(0)	1	2
conference	25.65(6.53)	25.32(8.48)	6.75(3.5)	74.68(8.48)	26.67(6.63)	3.45(1.7)	1.22(0.44)	0.01(0)	100(0)	9	42
largebio_big	24.63(1.16)	18.52(19.11)	4.47(4.55)	81.76(19.18)	14,767.33(9,385.61)	1.17(1.43)	616.17(804.78)	7.27(9.47)	100(0)	6	6
largebio_small	22.96(2.95)	9.89(10.45)	2.31(2.45)	90.38(10.53)	13,397.67(8,550.06)	2.97(2.95)	330.67(530.39)	1.42(2.58)	100(0)	6	6
library	24.42(0.82)	32.57(45.28)	7.77(10.79)	68.14(45.06)	6,379(1,760.7)	11.99(16.68)	435(605.28)	30.49(43.06)	99.94(0.08)	2	2

Table 1.29: Measures of interest for ServOMap, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	1.23(0)	0.31(0)	98.77(0)	1,952(0)	0.4(0)	6(0)	0.02(0)	100(0)	1	1
largebio_big	25.66(0.97)	14.32(1.81)	3.68(0.58)	85.98(1.97)	14,658(10,230.4)	1.18(0.51)	494.67(359.88)	4.27(3.73)	100(0)	3	3
largebio_small	24.97(0.57)	11.88(0.9)	2.96(0.19)	88.49(0.98)	13,696(9,302.72)	4.08(1.29)	379(226.06)	1.32(1.37)	100(0)	3	3
library	26.93(0)	33.91(0)	9.13(0)	68(0)	6,482(0)	11.09(0)	418(0)	60.68(0)	99.76(0)	1	1

Table 1.30: Measures of interest for ServOMapL, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
largebio_big	27.39(0.95)	6.82(2.72)	1.86(0.74)	93.29(2.76)	9,779.33(8,466.16)	0.27(0.25)	151.33(146.49)	1.98(1.45)	100(0)	3	3
largebio_small	25.76(0.8)	5.97(2.71)	1.55(0.74)	94.12(2.69)	8,883.33(8,604.64)	1.08(0.47)	138.33(171.24)	0.63(0.9)	100(0)	3	3

Table 1.31: Measures of interest for Sphere, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	24.04(0)	3.94(0)	0.95(0)	95.83(0)	2,640(0)	0.94(0)	14(0)	0.03(0)	100(0)	1	1
largebio_small	21.95(0)	2.11(0)	0.46(0)	98.09(0)	3,880(0)	0.57(0)	16(0)	0.04(0)	100(0)	1	1
library	25(0)	0.49(0)	0.12(0)	100(0)	1,624(0)	0.06(0)	2(0)	0.03(0)	100(0)	1	1

Table 1.32: Measures of interest for StringsAuto, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	1.02(0)	0.26(0)	98.98(0)	2,740(0)	0.35(0)	7(0)	0.02(0)	100(0)	1	1
largebio_big	28.77(0.73)	4.61(0.96)	1.33(0.3)	95.56(0.96)	16,014.67(10,080.38)	0.25(0.11)	134.67(71.77)	21.99(34.93)	99.61(0.68)	3	3
largebio_small	24.93(3.06)	9.77(7.59)	2.29(1.75)	90.62(7.62)	16,213.33(11,623.98)	3.3(2.66)	312(360.47)	1.44(1.96)	100(0)	3	3
library	57.85(0)	83.08(0)	48.06(0)	18.48(0)	11,948(0)	38.55(0)	535(0)	121.06(0)	99.81(0)	1	1

Table 1.33: Measures of interest for XMap, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	32.98(0)	25.46(0)	8.4(0)	74.54(0)	2,608(0)	7.2(0)	89(0)	1.73(0)	100(0)	1	1
conference	26.65(3.9)	35.19(15.72)	9.56(5.04)	63.23(14.41)	30.71(13.61)	6.82(5.24)	2.39(1.91)	0.01(0)	100(0)	31	42
largebio_small	29.21(1.89)	28.36(9.43)	8.37(3.29)	71.89(9.32)	3,514(197.99)	4.32(0.98)	178.5(40.31)	67.56(10.51)	98.7(0.89)	2	2
library	99.24(0)	98.45(0)	97.71(0)	2.19(0)	80,686(0)	58.7(0)	161(0)	218.49(0)	99.38(0)	1	1

Table 1.34: Measures of interest for XMapGen, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	31.15(0)	20.47(0)	6.38(0)	79.53(0)	2,384(0)	5.48(0)	72(0)	0.29(0)	100(0)	1	1
conference	25.83(2.64)	26.61(9.37)	6.97(2.89)	69.63(9.89)	22.6(6.4)	3.73(2.16)	1.4(0.52)	0.01(0)	100(0)	10	42
largebio_small	29.38(1.96)	23.63(7.73)	7.02(2.73)	76.4(7.69)	3,145(24.04)	3.15(0.87)	125.5(14.85)	67.82(10.92)	98.09(1.46)	2	2
library	25.67(0)	26.06(0)	6.69(0)	74.43(0)	2,870(0)	3.69(0)	168(0)	0.36(0)	100(0)	1	1

Table 1.35: Measures of interest for XMapSig, grouped by track.

System	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
anatomy	25(0)	3.32(0.03)	0.83(0.01)	96.68(0.03)	2,773(24.04)	1.14(0)	23(0)	0.04(0)	100(0)	2	2
largebio_big	24.47(0.31)	13.36(7.48)	3.28(1.83)	86.74(7.53)	14,991.67(9,099.11)	0.85(0.48)	391.5(266.39)	4.24(3.38)	100(0)	6	6
largebio_small	24.05(0.69)	10.82(6.6)	2.6(1.59)	89.29(6.66)	13,954.67(8,287.16)	3.8(2.74)	281.33(178.14)	0.98(0.93)	100(0)	6	6
library	23.39(0.1)	59.69(6.85)	13.96(1.54)	40.89(6.6)	7,746(274.36)	22.23(3.34)	877.5(88.39)	61.19(0.56)	99.89(0.01)	2	2

Table 1.36: Measures of interest for YAM++, grouped by track.

Track	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	#$\mathcal{M}$	#Tot$\mathcal{M}$
aml	25(0)	0.95(0)	0.24(0)	99.05(0)	2,956(0)	0.35(0)	7(0)	0.02(0)	100(0)	1	2
aroma	25(0)	1(0)	0.25(0)	99(0)	2,410(0)	0.3(0)	6(0)	0.03(0)	100(0)	1	1
asmov	25.79(1.95)	6.34(4)	1.69(1.09)	93.91(3.98)	2,918(205.61)	2.14(1.32)	34(20.77)	0.06(0.03)	100(0)	9	12
cidercl	18.97(0)	3.39(0)	0.64(0)	100(0)	3,422(0)	1.94(0)	20(0)	0.04(0)	100(0)	1	1
codi	25(0)	0.15(0)	0.04(0)	99.77(0)	2,606(0)	0.07(0)	1(0)	0.01(0)	100(0)	1	1
gomma	24.47(0.4)	8.19(2.86)	2(0.66)	91.59(2.84)	2,720(311.77)	2.72(1.25)	51.33(23.09)	0.08(0.03)	100(0)	3	3
gommabk	24.01(0)	11.49(0)	2.76(0)	88.31(0)	3,080(0)	4.17(0)	78(0)	0.12(0)	100(0)	1	1
lily	17.43(4.49)	2.27(0.45)	0.38(0.03)	100(0)	3,286.67(1,416.25)	1.39(0.77)	9.67(4.04)	0.09(0.09)	100(0)	3	3
logmap	23.99(0.02)	10.6(0.15)	2.54(0.04)	89.23(0.1)	2,805(5.2)	3.55(0.05)	65(0)	0.1(0.01)	100(0)	3	3
logmapbio	24.45(0)	17.49(0)	4.28(0)	82.22(0)	3,110(0)	6.27(0)	110(0)	0.19(0)	100(0)	1	1
logmaplt	25(0)	7.05(0.1)	1.76(0.02)	92.69(0.1)	2,307.33(1.15)	1.97(0.03)	37.67(0.58)	0.07(0.01)	100(0)	3	3
maasmatch	14.84(1.34)	2.04(0.92)	0.3(0.11)	100(0)	4,748(1,026.72)	1.57(0.42)	10.5(0.71)	0.03(0)	100(0)	2	3
mapsss	25(0)	0.33(0)	0.08(0)	100(0)	2,424(0)	0.13(0)	2(0)	0.02(0)	100(0)	1	2
optima	34.27(0)	13.78(0)	4.72(0)	86.32(0)	2,076(0)	2.56(0)	36(0)	3.09(0)	100(0)	1	1
servomap	25(0)	5.33(0)	1.33(0)	94.67(0)	1,950(0)	1.09(0)	20(0)	0.04(0)	100(0)	1	2
servomapl	25(0)	1.23(0)	0.31(0)	98.77(0)	1,952(0)	0.4(0)	6(0)	0.02(0)	100(0)	1	1
stringsauto	24.04(0)	3.94(0)	0.95(0)	95.83(0)	2,640(0)	0.94(0)	14(0)	0.03(0)	100(0)	1	1
toast	25(0)	0.3(0)	0.07(0)	100(0)	2,678(0)	0.13(0)	2(0)	0.01(0)	100(0)	1	1
xmap	25(0)	1.02(0)	0.26(0)	98.98(0)	2,740(0)	0.35(0)	7(0)	0.02(0)	100(0)	1	1
xmapgen	32.98(0)	25.46(0)	8.4(0)	74.54(0)	2,608(0)	7.2(0)	89(0)	1.73(0)	100(0)	1	1
xmapsig	31.15(0)	20.47(0)	6.38(0)	79.53(0)	2,384(0)	5.48(0)	72(0)	0.29(0)	100(0)	1	1
yam++	25(0)	3.32(0.03)	0.83(0.01)	96.68(0.03)	2,773(24.04)	1.14(0)	23(0)	0.04(0)	100(0)	2	2

Table 1.37: Measures of interest for *anatomy* track, grouped by matcher.

Track	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\lvert\mathcal{M}\rvert$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	Tot$\mathcal{M}$
aroma	25.64(2.31)	19.28(8.43)	4.9(2.06)	80.72(8.43)	38.92(11.74)	2.74(0.8)	1.23(0.44)	0.01(0)	100(0)	13	21
ase	35.22(5.28)	66.52(17.75)	23.82(7.43)	33.76(17.64)	49.89(19.55)	15.44(7.62)	3.94(1.8)	0.64(2.62)	100(0)	18	21
asmov	25(0)	10.76(3.8)	2.69(0.95)	100(0)	41.61(14.12)	3.95(1.67)	1(0)	0.01(0)	100(0)	18	300
autom	35.94(1.46)	61.93(4.2)	22.22(0.69)	38.07(4.2)	30(9.17)	5.04(1.45)	1(0)	0.01(0.01)	100(0)	3	21
cidercl	23.18(3.13)	16.09(7.8)	3.59(1.42)	100(0)	38.6(10.83)	4.11(3.09)	1.3(0.67)	0.01(0)	100(0)	10	21
cromatcher	25(0)	6.55(2.99)	1.64(0.75)	100(0)	68.67(24.85)	2.61(0.99)	1(0)	0	100(0)	3	15
lily	23.75(7.25)	16.48(13.16)	3.67(2.55)	100(0)	62.98(25.56)	8.85(9.4)	1.37(0.54)	0.01(0.02)	100(0)	43	105
logmap	25(0)	15.38(0)	3.85(0)	84.62(0)	26(0)	2.73(0)	1(0)	0.01(0)	100(0)	3	63
logmaplt	25(0)	16.67(0)	4.17(0)	83.33(0)	24(0)	2.65(0)	1(0)	0.01(0)	100(0)	3	63
maasmatch	21.67(5.22)	9.02(4.54)	1.82(0.84)	100(0)	91.29(36.58)	5.76(3.52)	1.38(0.74)	0.01(0)	100(0)	34	63
medley	25.93(3.03)	38.88(13.28)	10.01(3.52)	63.65(12.62)	71.3(34.98)	14.95(6.77)	5.7(3.5)	0.01(0.01)	100(0)	20	21
optima	25(0)	13.76(3.04)	3.44(0.76)	89.18(7.71)	35.5(5.97)	2.74(1.02)	1.25(0.5)	0	100(0)	4	21
rimom	39.35(2.85)	90.03(5.42)	35.49(3.91)	9.97(5.42)	112(47.01)	21.29(7.28)	3.33(1.53)	29.58(29.29)	80(30.89)	21	21
servomap	25.65(6.53)	25.32(8.48)	6.75(3.5)	74.68(8.48)	26.67(6.63)	3.45(1.7)	1.22(0.44)	0.01(0)	100(0)	9	42
xmapgen	26.65(3.9)	35.19(15.72)	9.56(5.04)	63.23(14.41)	30.71(13.61)	6.82(5.24)	2.39(1.91)	0.01(0)	100(0)	31	42
xmapsig	25.83(2.64)	26.61(9.37)	6.97(2.89)	69.63(9.89)	22.6(6.4)	3.73(2.16)	1.4(0.52)	0.01(0)	100(0)	10	42

Table 1.38: Measures of interest for *conference* track, grouped by matcher.

Track	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
aml	25.17(1.77)	8.67(8.65)	2.11(2.03)	91.43(8.61)	13,639.33(8,318.84)	0.5(0.67)	272.83(377.02)	3.42(4.1)	100(0)	6	6
amlbk	26.09(1.11)	2.9(3.21)	0.78(0.88)	97.2(3.11)	13,578.67(8,589.8)	0.13(0.11)	68.67(62.08)	1.34(1.05)	100(0)	3	3
amlbkr	25.52(0.9)	2.57(2.94)	0.67(0.79)	97.54(2.85)	13,101.33(8,358.55)	0.11(0.09)	59(51.88)	1(0.53)	100(0)	3	3
amlbku	26.46(1.02)	32.35(7.42)	8.61(2.3)	67.75(7.37)	19,830(14,842.99)	2.54(2.28)	1,388(1,224.36)	14.6(12.56)	100(0)	3	3
amlbkur	26.35(1.22)	29.72(6.66)	7.88(2.14)	70.38(6.61)	18,794(14,225.53)	2.26(2.05)	1,253.33(1,127.3)	13.33(11.82)	100(0)	3	3
amlr	25.79(1.37)	1.78(1.76)	0.47(0.48)	98.31(1.69)	12,326(8,333.74)	0.08(0.07)	43.33(45.24)	0.83(0.47)	100(0)	3	3
aroma	25.45(0.04)	12.61(14.84)	3.21(3.77)	87.49(14.98)	6,353(1,921.92)	1.2(1.63)	212.5(266.58)	0.67(0.29)	100(0)	2	2
gomma	25.43(1.76)	14.97(9.09)	3.73(2.26)	85.2(9.25)	13,883.33(8,788.02)	1.13(1.03)	511.33(554.95)	24.74(36.45)	99.97(0.04)	6	6
gommabk	25.35(1.53)	38.21(18.69)	9.71(4.69)	61.87(18.63)	20,916(13,072.71)	3.96(2.17)	1,793.33(1,423.8)	31.86(39.78)	99.97(0.06)	3	3
gommasbk	25.51(1.73)	38.85(18.27)	9.94(4.61)	61.26(18.18)	21,162(13,241.35)	3.28(2.34)	1,822.67(1,426.91)	59.08(54.23)	99.95(0.08)	3	3
iama	28.28(0.56)	10.46(6.6)	2.98(1.94)	89.63(6.51)	8,223.33(8,200.18)	0.29(0.24)	156.33(132.3)	1.88(1.4)	100(0)	3	3
logmap	24.51(0.3)	18.88(3.48)	4.63(0.88)	81.21(3.53)	13,858.89(8,227.81)	1.24(0.77)	631.22(452.92)	6.4(4.78)	100(0)	9	9
logmap2noe	24.61(0.21)	19.3(2.48)	4.75(0.6)	80.73(2.55)	14,724.33(10,596.93)	1.56(0.77)	666(531.07)	6.07(5.64)	100(0)	3	3
logmapbio	24.68(0.15)	28.83(5.33)	7.12(1.36)	71.29(5.38)	15,170.33(9,168.86)	1.63(0.74)	890.33(443.54)	9.49(5.13)	100(0)	3	3
logmapbk	24.61(0.17)	20.22(3.33)	4.98(0.82)	79.93(3.35)	14,008.67(9,663.85)	1.18(0.93)	676.33(545.57)	7.14(5.53)	100(0)	3	3
logmapc	24.94(0.1)	1.75(1.73)	0.43(0.43)	94.78(5.08)	9,217.67(6,133.99)	0.09(0.13)	55.67(79.1)	1.18(1.21)	100(0)	3	3
logmaplt	26.57(1.01)	31.52(18.3)	8.52(5.05)	68.61(18.29)	12,038.22(10,339.19)	1.96(1.57)	824.56(728.34)	35.74(48.42)	99.93(0.11)	9	9
mapsss	23.86(0)	1.7(0)	0.41(0)	100(0)	5,168(0)	0.17(0)	19(0)	0.18(0)	100(0)	1	1
omreasoner	25(0)	0.14(0)	0.04(0)	99.86(0)	2,806(0)	0	1(0)	0.3(0)	100(0)	1	1
servomap	24.63(1.16)	18.52(19.11)	4.47(4.55)	81.76(19.18)	14,767.33(9,385.61)	1.17(1.43)	616.17(804.78)	7.27(9.47)	100(0)	6	6
servomapl	25.66(0.97)	14.32(1.81)	3.68(0.58)	85.98(1.97)	14,658(10,230.4)	1.18(0.51)	494.67(359.88)	4.27(3.73)	100(0)	3	3
sphere	27.39(0.95)	6.82(2.72)	1.86(0.74)	93.29(2.76)	9,779.33(8,466.16)	0.27(0.25)	151.33(146.49)	1.98(1.45)	100(0)	3	3
xmap	28.77(0.73)	4.61(0.96)	1.33(0.3)	95.56(0.96)	16,014.67(10,080.38)	0.25(0.11)	134.67(71.77)	21.99(34.93)	99.61(0.68)	3	3
yam++	24.47(0.31)	13.36(7.48)	3.28(1.83)	86.74(7.53)	14,991.67(9,099.11)	0.85(0.48)	391.5(266.39)	4.24(3.38)	100(0)	6	6

Table 1.39: Measures of interest for *largebio* (big) track, grouped by matcher.

Track	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	#$\mathcal{M}$	#Tot$\mathcal{M}$
aml	23.2(0.95)	12.01(7.79)	2.83(1.84)	88.2(7.75)	15,421(10,001.55)	3.94(2.58)	404.17(442.2)	1.75(2.35)	100(0)	6	6
amlbk	22.72(1.21)	10.78(9.38)	2.52(2.21)	89.44(9.37)	15,494.67(11,004.87)	3.54(3.38)	329.33(394.84)	1.47(2.18)	100(0)	3	3
amlbkr	22.09(1.86)	9.01(7.9)	2.09(1.85)	91.19(7.87)	14,786(10,488.16)	2.88(2.8)	268.33(320.63)	1.19(1.76)	100(0)	3	3
amlbku	26.42(1.09)	32.87(8.4)	8.74(2.58)	67.24(8.35)	20,058.67(15,225.02)	13.23(0.37)	1,415.33(1,281.87)	5.76(7.49)	100(0)	3	3
amlbkur	26.25(1.3)	29.66(7.6)	7.85(2.41)	70.43(7.54)	19,019.33(14,558.44)	11.52(0.73)	1,275.33(1,186.07)	5.21(6.83)	100(0)	3	3
amlr	22.01(1.8)	7.98(6.88)	1.84(1.6)	92.23(6.84)	14,391.33(10,196.15)	2.45(2.3)	237.33(289.28)	1.06(1.57)	100(0)	3	3
aroma	23.84(4.27)	10.66(8.83)	2.33(1.53)	90.73(6.53)	13,053.33(9,482.08)	3.79(4.11)	205(144.57)	21.37(34.04)	99.87(0.22)	3	3
autom	26.62(0)	22.22(0)	5.91(0)	78.33(0)	3,618(0)	5.21(0)	115(0)	60.25(0)	99.13(0)	1	1
gomma	24.11(1.49)	11.16(6.54)	2.62(1.49)	88.88(6.52)	11,231.67(7,708.11)	3.18(2.44)	280.33(257.45)	1.25(1.55)	100(0)	6	6
gommabk	24.51(0.78)	21.4(4.52)	5.27(1.26)	78.67(4.55)	15,823.33(9,525.47)	8.41(4.45)	651.33(325.11)	2.21(1.84)	100(0)	3	3
gommasbk	24.51(0.78)	21.4(4.52)	5.27(1.26)	78.67(4.55)	15,823.33(9,525.47)	8.41(4.45)	651.33(325.11)	2.21(1.89)	100(0)	3	3
hertuda	36.46(1.87)	59.37(1.46)	21.66(1.64)	40.72(1.47)	7,360(1,779.08)	10.76(7.2)	319.5(84.15)	130.32(71.56)	97.68(2.16)	2	4
hotmatch	25(0)	0.13(0.06)	0.03(0.01)	100(0)	4,419(199.4)	0.05(0.04)	1.5(0.71)	0.04(0.02)	100(0)	2	4
iama	26.8(1.07)	4.34(2.2)	1.15(0.55)	95.77(2.14)	7,604.67(7,989.51)	0.65(0.38)	97.67(132.93)	0.46(0.68)	100(0)	3	3
logmap	24.05(0.64)	19.63(5.05)	4.73(1.28)	80.54(5.06)	15,045.89(9,817.76)	6.57(1.31)	713.44(596.47)	2.77(3.2)	100(0)	9	9
logmap2noe	24.09(0.57)	20.24(4.75)	4.88(1.17)	79.84(4.83)	14,949.33(10,959.15)	6.84(1.39)	708.67(631.24)	2.69(3.44)	100(0)	3	3
logmapbio	24.16(0.43)	25.29(6.61)	6.12(1.62)	74.97(6.67)	15,792(11,738.34)	8.92(2.6)	860.67(742.61)	3.26(4.16)	100(0)	3	3
logmapbk	24.15(0.65)	20.71(5.25)	5.01(1.32)	79.49(5.3)	15,299.33(11,518.75)	7.07(1.37)	750.67(698.12)	2.86(3.72)	100(0)	3	3
logmapc	25.02(0.04)	1.98(2.27)	0.5(0.57)	94.05(6.49)	9,472(6,744)	0.4(0.37)	69(105.7)	0.36(0.54)	100(0)	3	3
logmaplt	24.46(0.43)	15.23(7.7)	3.75(1.94)	84.9(7.69)	10,055.78(8,923.14)	3.74(2.42)	434.44(489.86)	1.94(2.56)	100(0)	9	9
maasmatch	13.17(6.68)	6.5(5.02)	0.61(0.26)	100(0)	9,244(4,707.32)	5.16(4.19)	34.75(34.87)	30.1(34.58)	97.3(3.13)	4	4
mapsss	24.1(0.89)	1.67(0.82)	0.41(0.21)	100(0)	9,696.67(8,470.52)	0.48(0.24)	41(34.04)	0.21(0.23)	100(0)	3	3
odgoms	24.84(0.76)	5.55(4.3)	1.4(1.1)	94.77(4.45)	6,599.5(3,499.32)	1.97(1.71)	73.25(47.81)	0.18(0.06)	100(0)	4	4
omreasoner	30.52(7.8)	17.83(22.43)	6.31(8.24)	82.28(22.38)	8,640(7,919.6)	0.81(0.79)	55.5(4.95)	60.29(84.63)	95.19(6.8)	2	3
servomap	22.96(2.95)	9.89(10.45)	2.31(2.45)	90.38(10.53)	13,397.67(8,550.06)	2.97(2.95)	330.67(530.39)	1.42(2.58)	100(0)	6	6
servomapl	24.97(0.57)	11.88(0.9)	2.96(0.19)	88.49(0.98)	13,696(9,302.72)	4.08(1.29)	379(226.06)	1.32(1.37)	100(0)	3	3
sphere	25.76(0.8)	5.97(2.71)	1.55(0.74)	94.12(2.69)	8,883.33(8,604.64)	1.08(0.47)	138.33(171.24)	0.63(0.9)	100(0)	3	3
stringsauto	21.95(0)	2.11(0)	0.46(0)	98.09(0)	3,880(0)	0.57(0)	16(0)	0.04(0)	100(0)	1	1
xmap	24.93(3.06)	9.77(7.59)	2.29(1.75)	90.62(7.62)	16,213.33(11,623.98)	3.3(2.66)	312(360.47)	1.44(1.96)	100(0)	3	3
xmapgen	29.21(1.89)	28.36(9.43)	8.37(3.29)	71.89(9.32)	3,514(197.99)	4.32(0.98)	178.5(40.31)	67.56(10.51)	98.7(0.89)	2	2
xmapsig	29.38(1.96)	23.63(7.73)	7.02(2.73)	76.4(7.69)	3,145(24.04)	3.15(0.87)	125.5(14.85)	67.82(10.92)	98.09(1.46)	2	2
yam++	24.05(0.69)	10.82(6.6)	2.6(1.59)	89.29(6.66)	13,954.67(8,287.16)	3.8(2.74)	281.33(178.14)	0.98(0.93)	100(0)	6	6

Table 1.40: Measures of interest for *largebio* (small) track, grouped by matcher.

Track	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
	% D/PM	% PM/M	% D/M	% 1-1M	$\|\mathcal{M}\|$	% VtxSCC/Vtx	probSCC	ASP (s)	% OptDiag	$\#\mathcal{M}$	$\#\text{Tot}\mathcal{M}$
aml	32.44(12.67)	56.52(17.06)	19.69(13.64)	44.56(16.03)	7,812.67(1,566.58)	21.16(9.51)	661.67(107.87)	41.15(68.89)	99.94(0.1)	3	3
aroma	88.05(0)	94.82(0)	83.5(0)	6.68(0)	34,470(0)	45.86(0)	220(0)	182.45(0)	96.36(0)	1	1
codi	18.87(0)	1.61(0)	0.3(0)	100(0)	6,570(0)	0.76(0)	20(0)	0.07(0)	100(0)	1	1
gomma	56.83(0)	75.67(0)	43(0)	26.59(0)	10,126(0)	32.19(0)	515(0)	120.71(0)	99.81(0)	1	1
hertuda	62.64(0)	83.39(0)	52.24(0)	18.52(0)	12,032(0)	39.08(0)	500(0)	121.02(0)	99.8(0)	1	2
iama	26.32(0)	10.05(0)	2.65(0)	91.01(0)	378(0)	0.19(0)	9(0)	0.04(0)	100(0)	1	1
logmap	25.34(0.07)	45.95(2.12)	11.64(0.55)	54.48(2.14)	5,835(275.98)	13.09(1.22)	585(56.36)	1.14(0.11)	100(0)	4	4
logmapc	25.42(0)	4.03(0)	1.03(0)	81.78(0)	2,925(0)	0.59(0)	29(0)	0.08(0)	100(0)	1	1
logmaplt	42.57(0.12)	68.14(0.26)	29(0.13)	33.3(0.28)	8,192(24.58)	25.42(0.15)	622.33(2.52)	121.13(0.34)	99.84(0)	3	3
maasmatch	96.75(0)	13.79(0)	13.34(0)	100(0)	8,922(0)	9.82(0)	13(0)	160.26(0)	92.31(0)	1	1
mapsss	24.04(0)	4.71(0)	1.13(0)	100(0)	2,208(0)	0.8(0)	24(0)	0.08(0)	100(0)	1	1
odgoms	30.86(0)	51.22(0)	15.81(0)	49.37(0)	7,794(0)	18.6(0)	738(0)	2.13(0)	100(0)	1	1
optima	28.87(0)	42.17(0)	12.17(0)	58.41(0)	1,380(0)	2.67(0)	100(0)	0.42(0)	100(0)	1	1
rsdlwb	25(0)	1.17(0)	0.29(0)	100(0)	342(0)	0.03(0)	1(0)	0.03(0)	100(0)	1	1
servomap	24.42(0.82)	32.57(45.28)	7.77(10.79)	68.14(45.06)	6,379(1,760.7)	11.99(16.68)	435(605.28)	30.49(43.06)	99.94(0.08)	2	2
servomapl	26.93(0)	33.91(0)	9.13(0)	68(0)	6,482(0)	11.09(0)	418(0)	60.68(0)	99.76(0)	1	1
stringsauto	25(0)	0.49(0)	0.12(0)	100(0)	1,624(0)	0.06(0)	2(0)	0.03(0)	100(0)	1	1
xmap	57.85(0)	83.08(0)	48.06(0)	18.48(0)	11,948(0)	38.55(0)	535(0)	121.06(0)	99.81(0)	1	1
xmapgen	99.24(0)	98.45(0)	97.71(0)	2.19(0)	80,686(0)	58.7(0)	161(0)	218.49(0)	99.38(0)	1	1
xmapsig	25.67(0)	26.06(0)	6.69(0)	74.43(0)	2,870(0)	3.69(0)	168(0)	0.36(0)	100(0)	1	1
yam++	23.39(0.1)	59.69(6.85)	13.96(1.54)	40.89(6.6)	7,746(274.36)	22.23(3.34)	877.5(88.39)	61.19(0.56)	99.89(0.01)	2	2

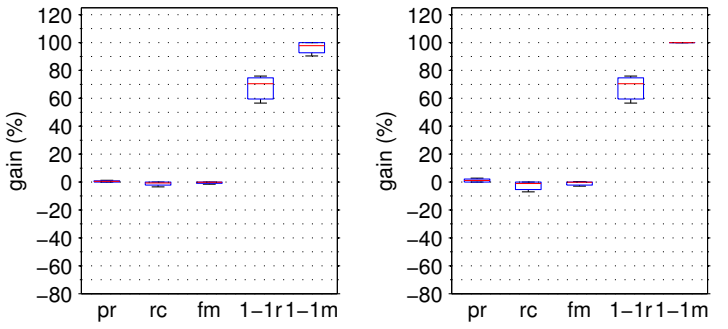
Table 1.41: Measures of interest for *library* track, grouped by matcher.

1.2 Repair Effects on Alignment Quality (Extended)

This section presents an evaluation of the effect of diagnosis on precision, recall and f-measure w.r.t. a reference alignment. The results of this section are grouped by matcher, instead of by track. For each pair of figures, the left one presents the results computed using, as repair, a nonconservative diagnosis computed using *ASP*. The right figure, instead, presents the nonconservative diagnosis computed with *ASP* on the 1-1 version of the original alignment, computed using our filtering heuristic for multiple-occurrences.

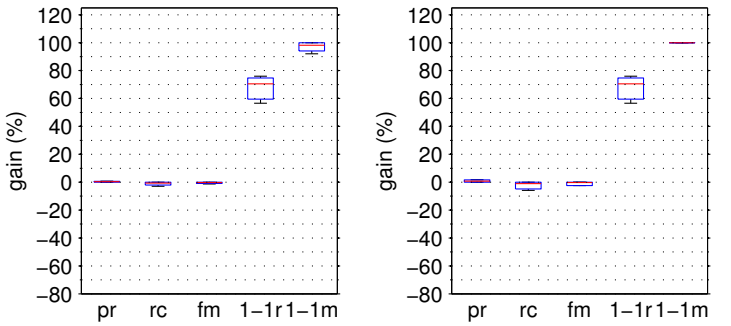
The analysis of the results grouped by matcher confirms that diagnosis application does not impact significantly on quality measures, even if precision tends to be increased, while recall tends to be decreased, as expected for a repair algorithm. F-measure gain is higher for 1-1 repaired alignments (that is, when a diagnosis removing both violations to the conservativity principle, and filtering at the same time multiple occurrences of the same entity as source or target element in different mappings), in particular when the matcher produces alignments far from a perfect 1-1 alignment.

To see this, consider the three matchers producing alignments on average with low percentage of 1-1 mappings, that is Ase matcher (with 1-1 percentage close to 55%, whose f-measure gain increases from $\sim 25\%$ to $\sim 50\%$), Hertuda matcher (with 1-1 percentage close to 60%, whose f-measure gain increases from less than 10% to $\sim 20\%$), and RIMOM matcher (with 1-1 percentage less than 10%, whose f-measure gain increases from 95% to 160%).



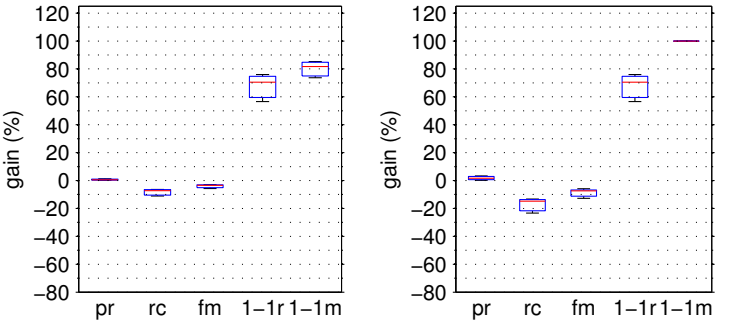
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.1: Repairing effect for AML-BK matcher.



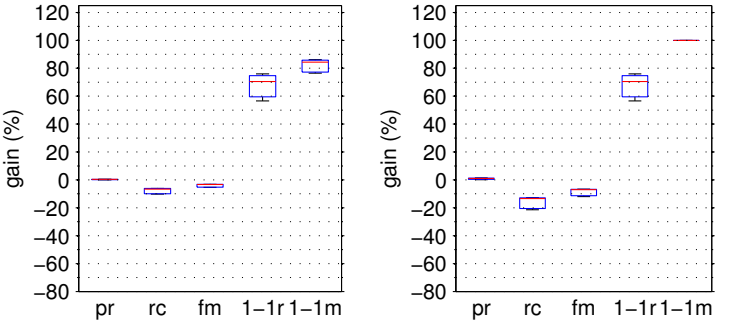
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.2: Repairing effect for AML-BKR matcher.



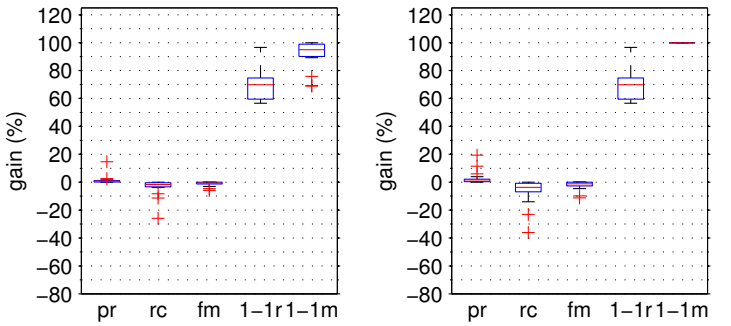
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.3: Repairing effect for AML-BKU matcher.



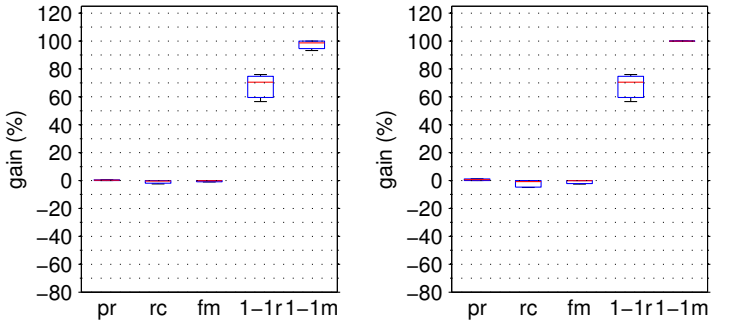
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.4: Repairing effect for AML-BKUR matcher.



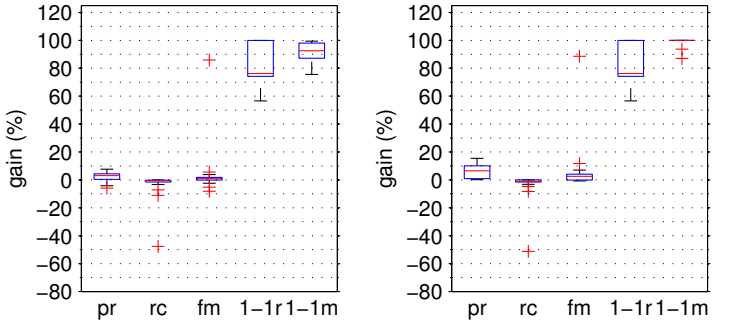
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.5: Repairing effect for AML matcher.



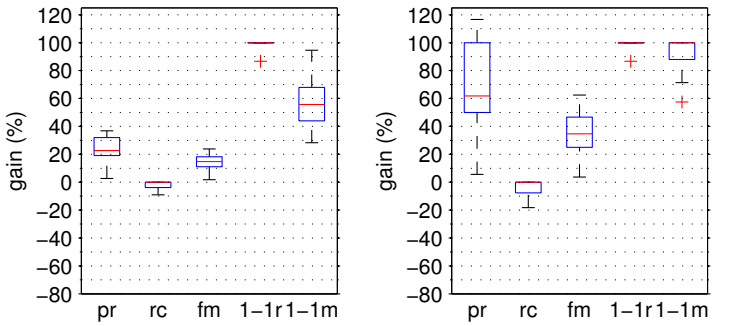
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.6: Repairing effect for AML-R matcher.



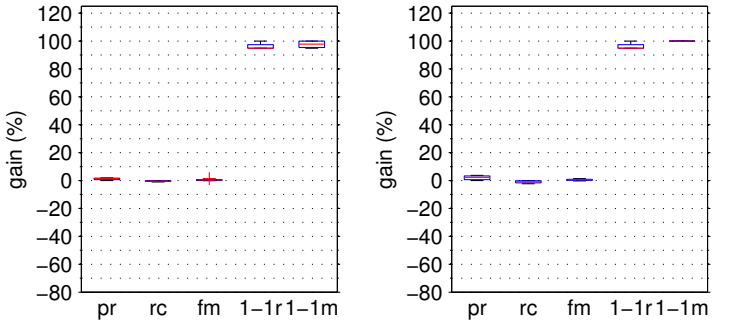
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.7: Repairing effect for Aroma matcher.



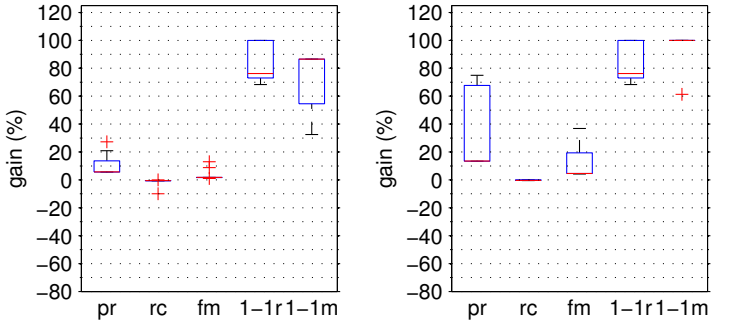
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.8: Repairing effect for Ase matcher.



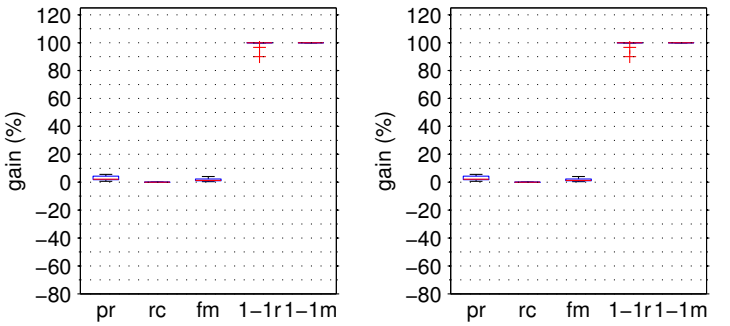
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.9: Repairing effect for ASMOV matcher.



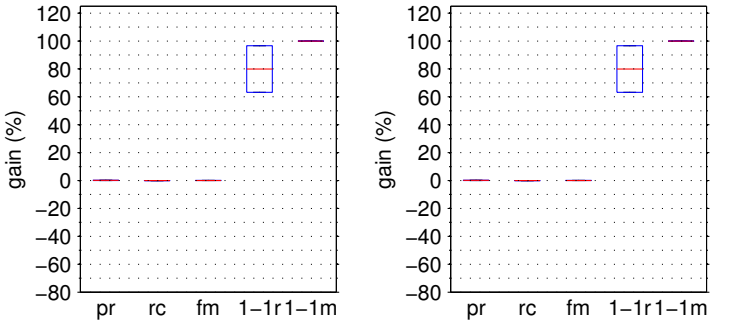
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.10: Repairing effect for Autom matcher.



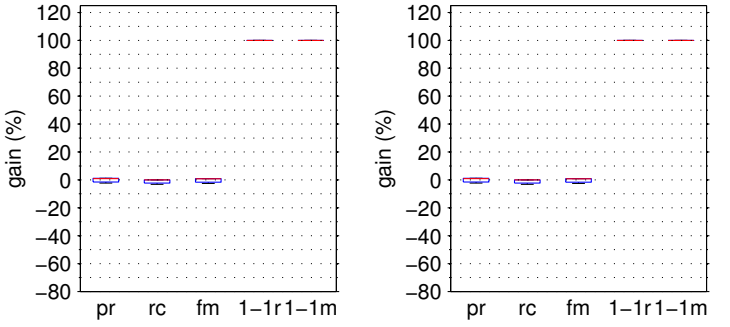
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.11: Repairing effect for CIDER-CL matcher.



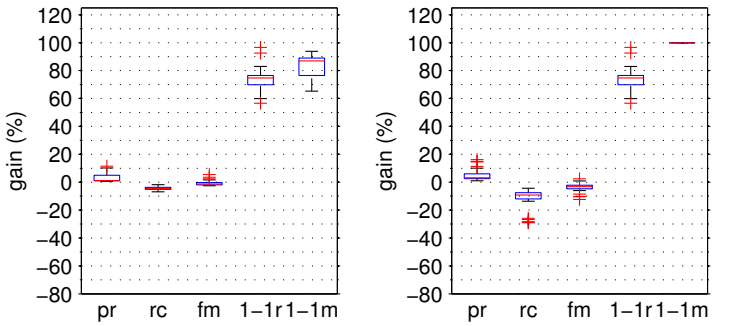
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.12: Repairing effect for Codi matcher.



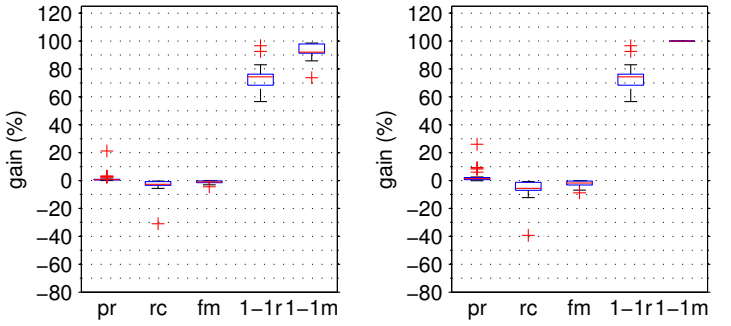
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.13: Repairing effect for Cro-Matcher matcher.



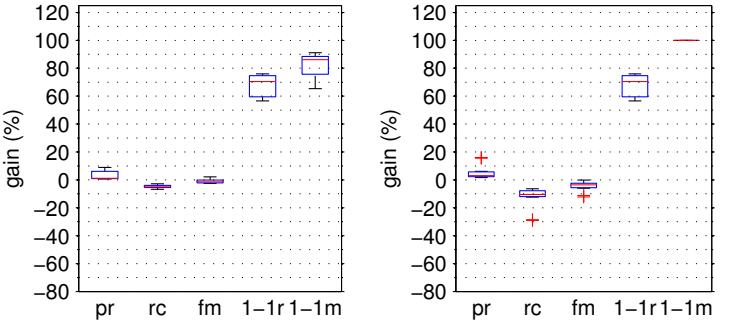
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.14: Repairing effect for GommaBK matcher.



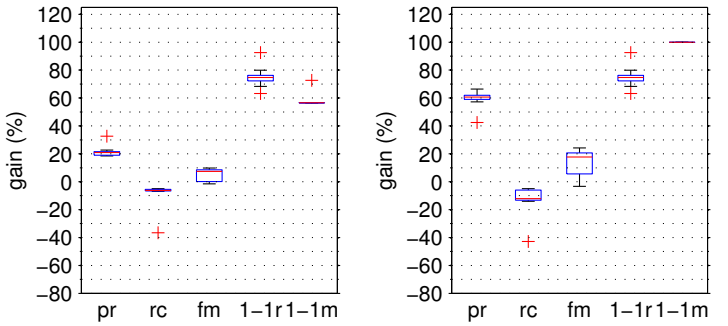
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.15: Repairing effect for Gomma matcher.



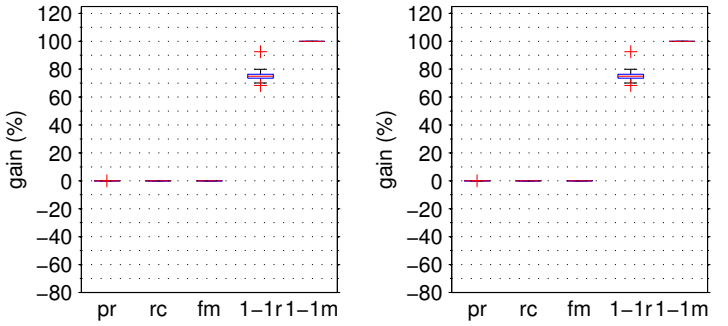
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.16: Repairing effect for GommaSBK matcher.



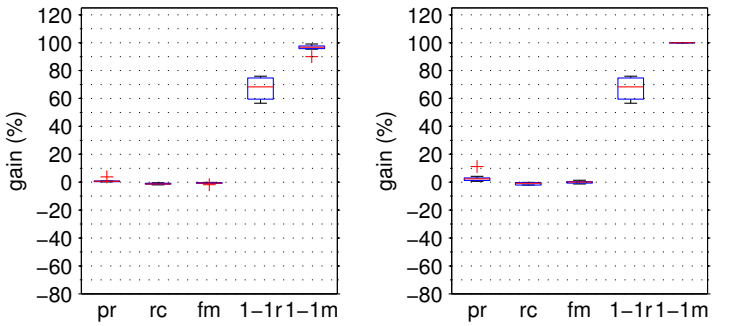
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.17: Repairing effect for Hertuda matcher.



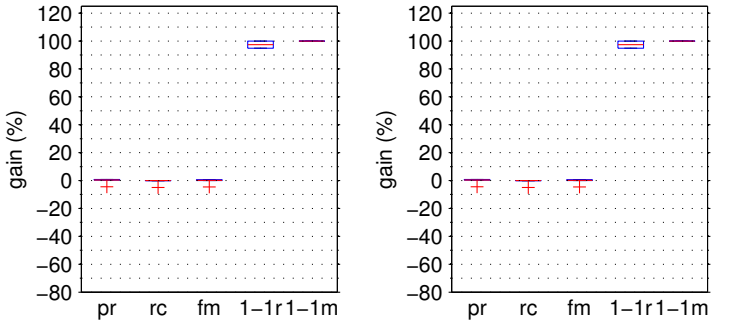
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.18: Repairing effect for HotMatch matcher.



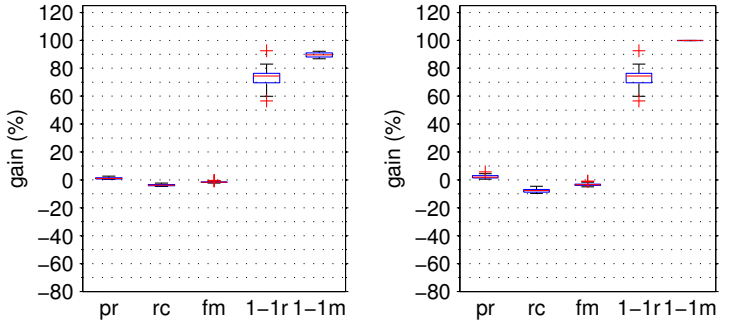
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.19: Repairing effect for IAMA matcher.



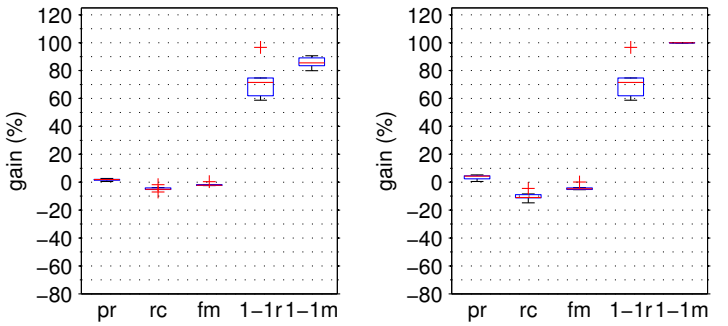
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.20: Repairing effect for Lily matcher.



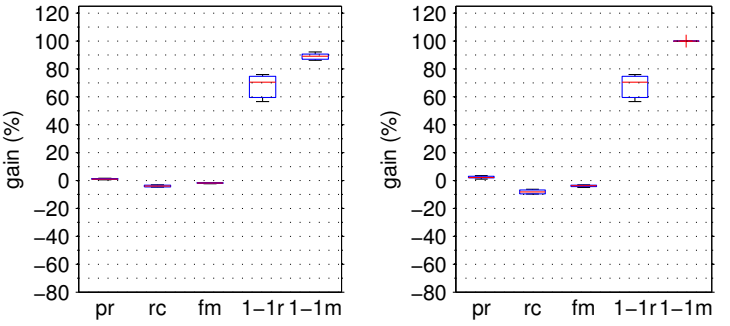
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.21: Repairing effect for LogMap 2noe matcher.



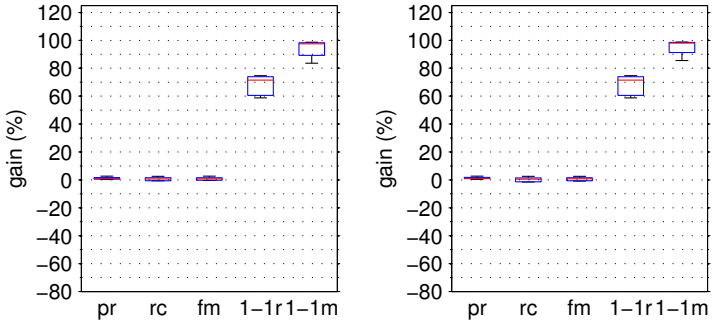
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.22: Repairing effect for LogMapBio matcher.



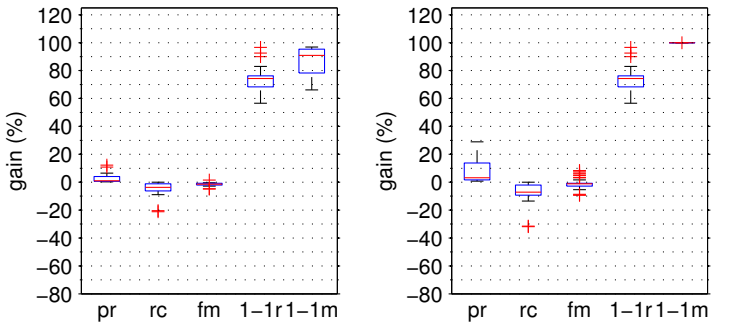
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.23: Repairing effect for LogMapBK matcher.



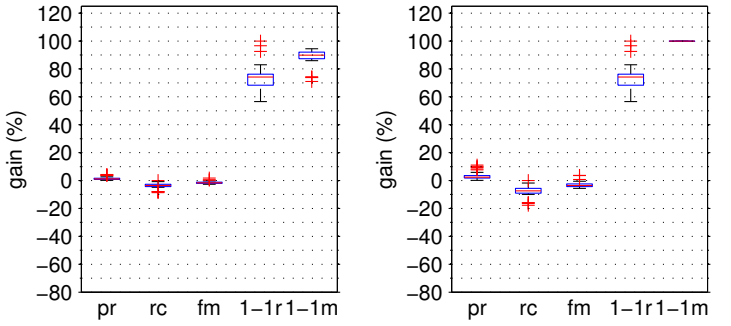
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.24: Repairing effect for LogMapC matcher.



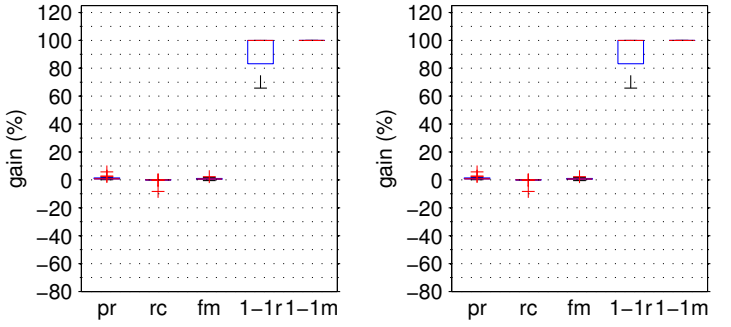
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.25: Repairing effect for LogMapLt matcher.



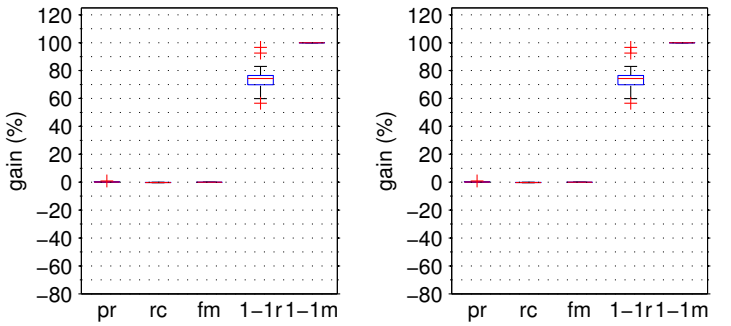
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.26: Repairing effect for LogMap matcher.



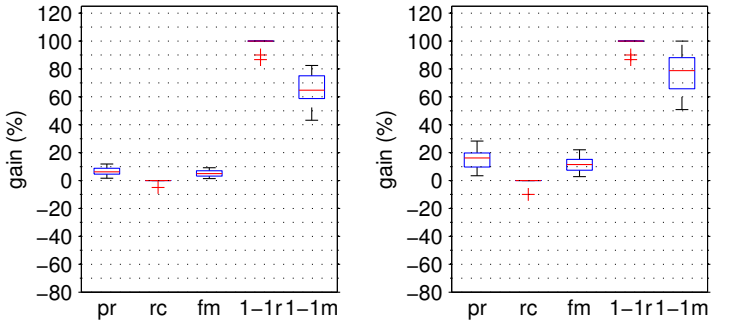
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.27: Repairing effect for MaasMatch matcher.



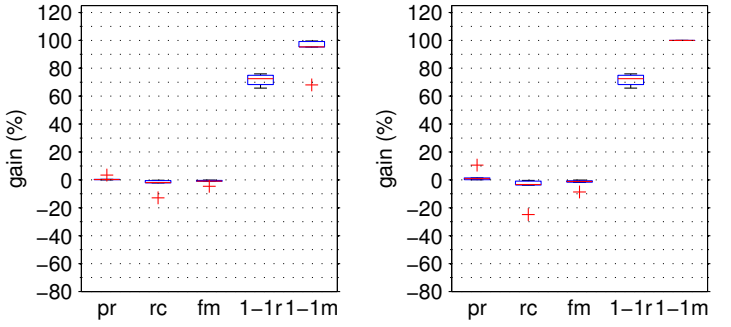
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.28: Repairing effect for MapSSS matcher.



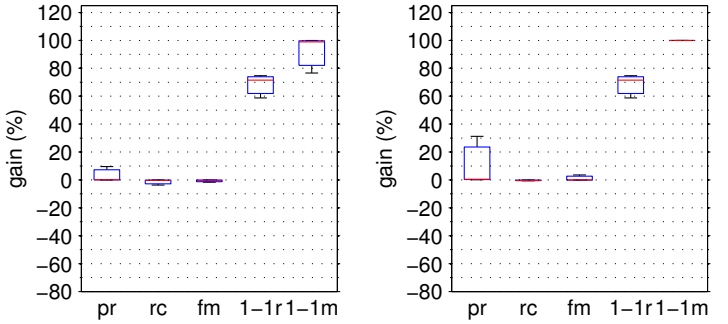
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.29: Repairing effect for Medley matcher.



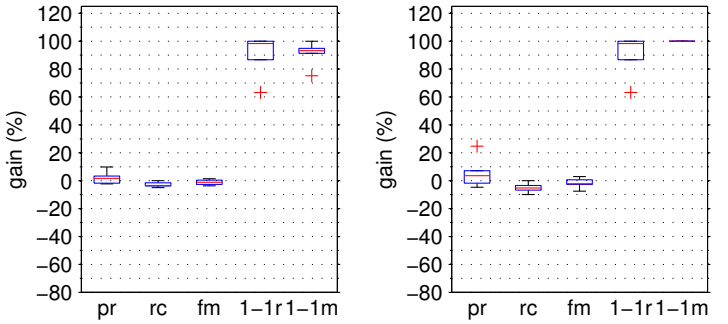
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.30: Repairing effect for ODGOMS matcher.



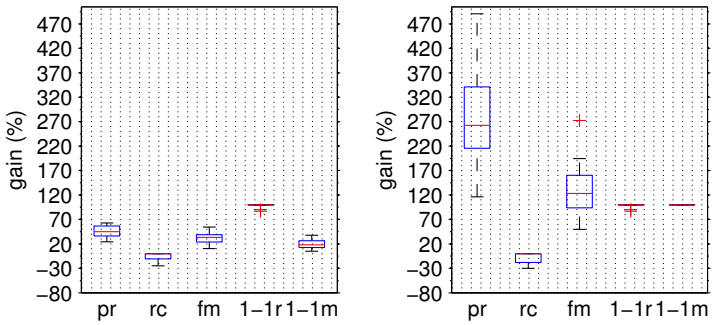
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.31: Repairing effect for OMReasoner matcher.



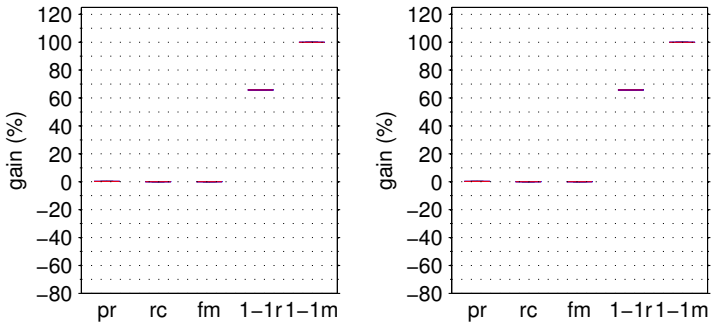
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.32: Repairing effect for Optima matcher.



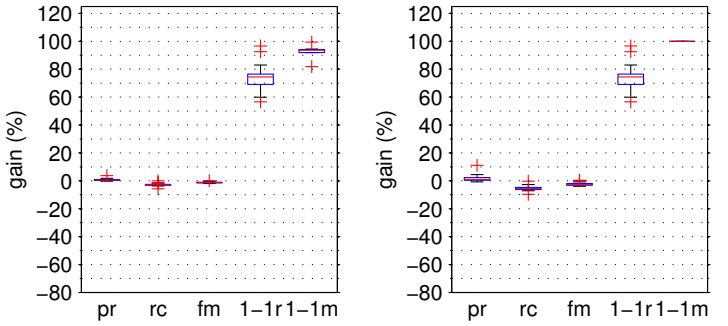
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.33: Repairing effect for RIMOM matcher.



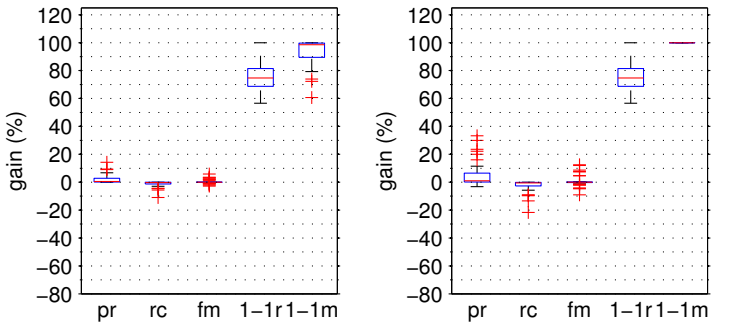
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.34: Repairing effect for RSDLWB matcher.



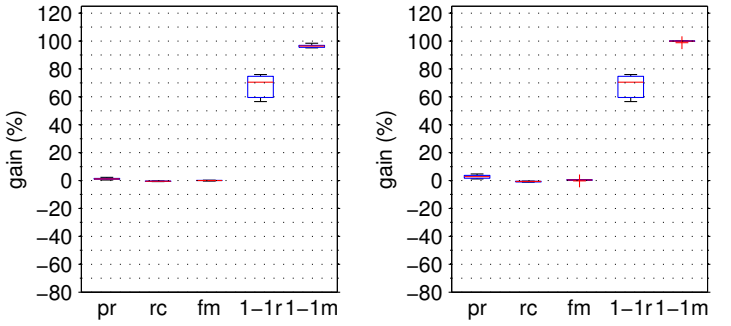
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.35: Repairing effect for ServOMapL matcher.



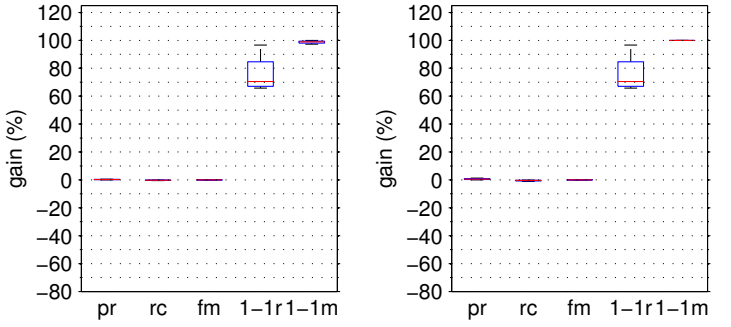
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.36: Repairing effect for ServOMap matcher.



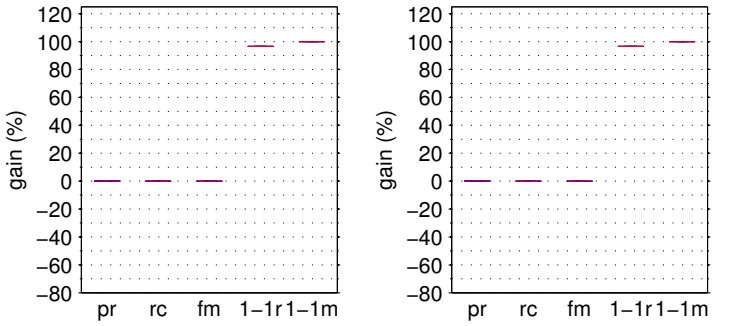
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.37: Repairing effect for Sphere matcher.



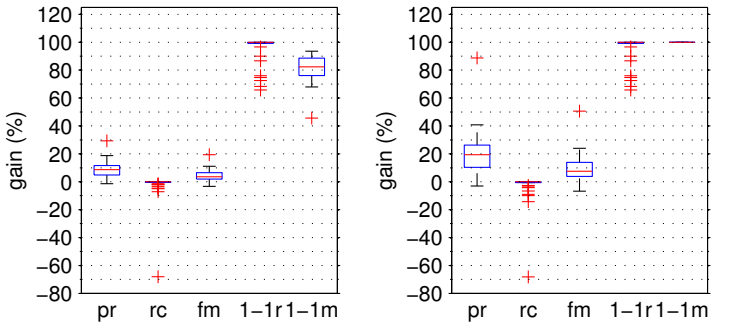
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.38: Repairing effect for StringsAuto matcher.



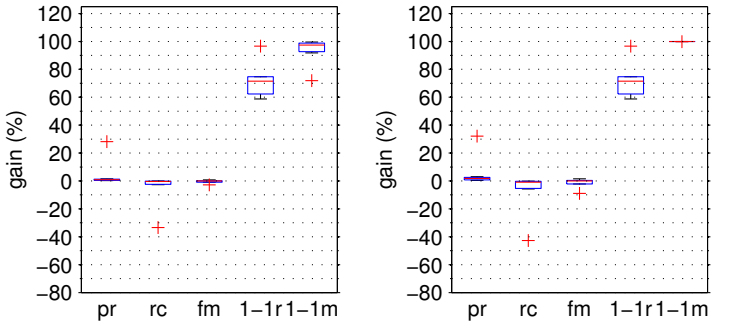
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.39: Repairing effect for Toast matcher.



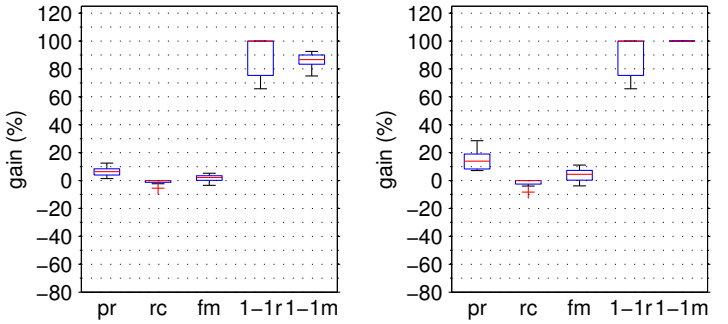
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.40: Repairing effect for XMapGen matcher.



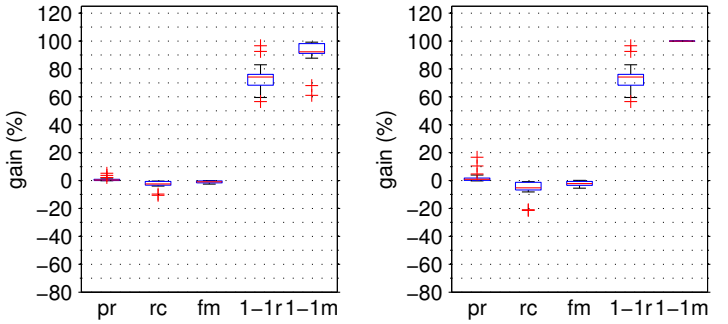
(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.41: Repairing effect for XMap matcher.



(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.42: Repairing effect for XMapSig matcher.



(a) Diagnosis. (b) Multiple-occurrences filtering.

Figure 1.43: Repairing effect for YAM++ matcher.

1.3 Runtime Analysis (Extended)

This section includes the details of the computational time required by substasks of diagnosis computation is here shown for each matcher in isolation.

We analyzed in details the alignments generated by matchers those alignments, on average, require an extraordinary large percentage of the total time for computing the diagnosis.

The problematic SCCs belonging to the graph representation involving such alignments have, on average, a number of mappings close to that of a complete graph for their number of vertices (of the input ontologies). This situation is responsible for a large search space for the diagnosis computation, and also for the computational time required by the *ASP* solver.

This hypothesis is confirmed by the fact that the diagnosis runtime is reduced when the *ASP* solver is called on 1-1 mappings extracted from the mappings of each problematic SCCs (that is, the case depicted in rightmost graphs).

In this last scenario, the good scalability of the multiple occurrences filtering heuristic we employ to extract the 1-1 mappings is less sensitive to the high number of occurrences of the same element, as the exact *ASP*-based solvers do.

Therefore, the main cause for high diagnosis time seems to be the low percentage of entities involved exclusively in 1-1 mappings. Of course, a degree of correlation with the alignment and input ontologies size exists, given that these measures influences the rate of 1-1 mappings.

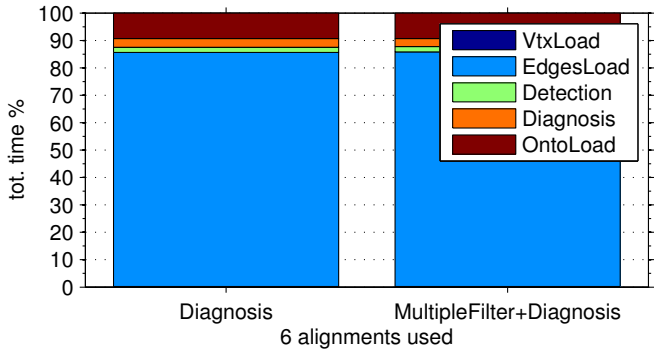


Figure 1.44: Runtime analysis for AML-BK matcher.

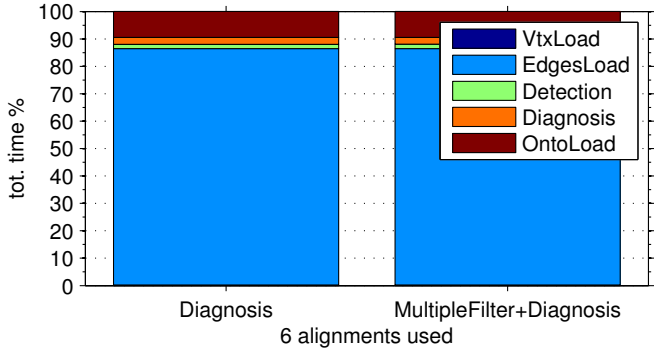


Figure 1.45: Runtime analysis for AML-BKR matcher.

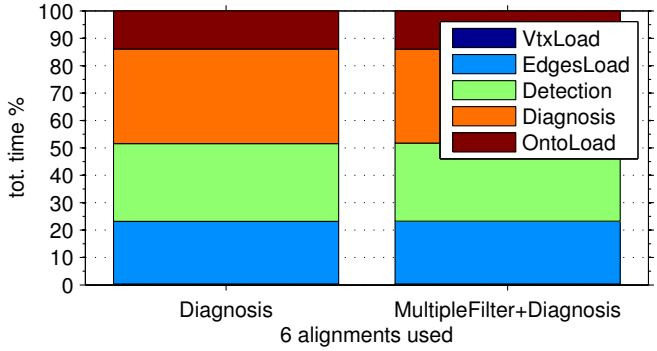


Figure 1.46: Runtime analysis for AML-BKU matcher.

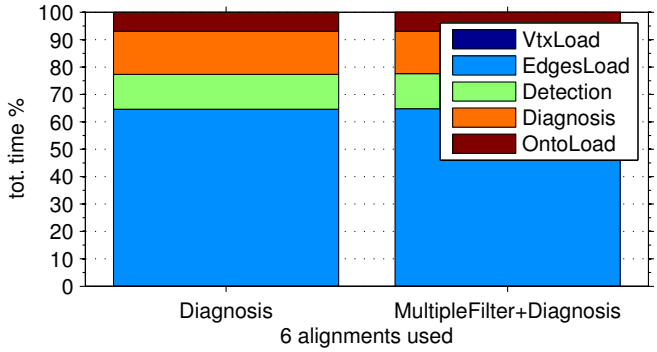


Figure 1.47: Runtime analysis for AML-BKUR matcher.

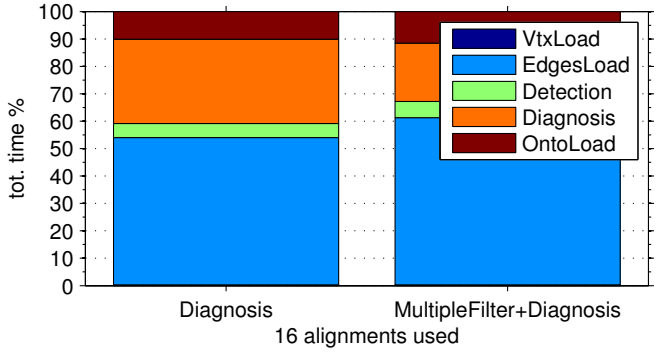


Figure 1.48: Runtime analysis for AML matcher.

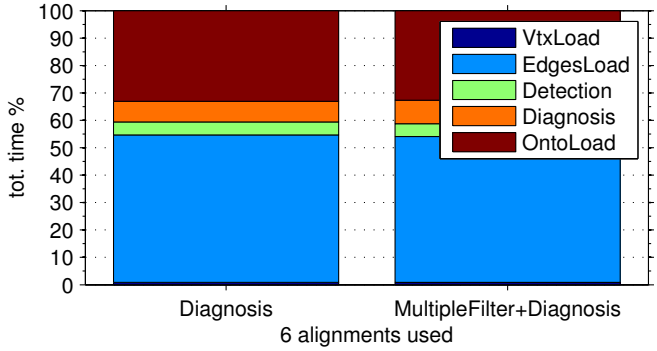


Figure 1.49: Runtime analysis for AML-R matcher.

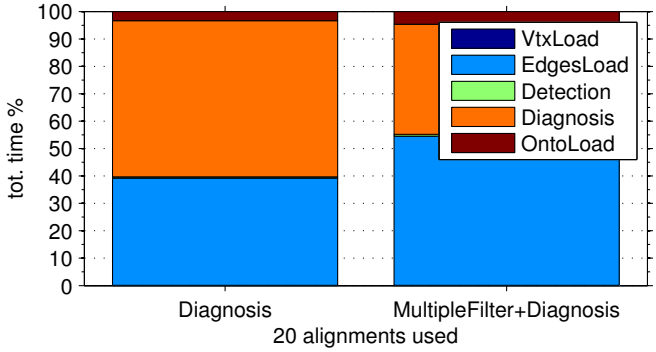


Figure 1.50: Runtime analysis for Aroma matcher.

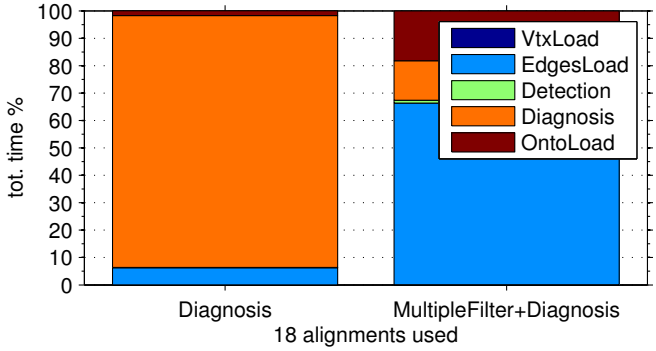


Figure 1.51: Runtime analysis for Ase matcher.

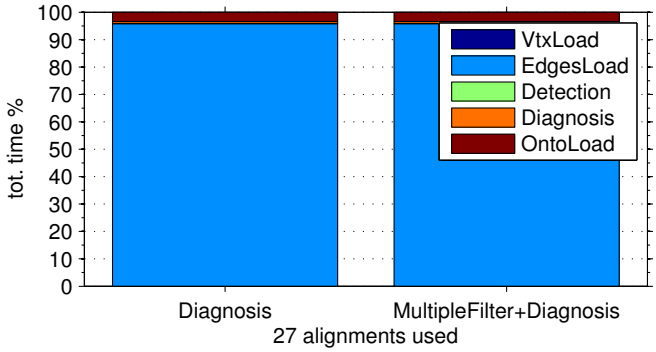


Figure 1.52: Runtime analysis for ASMOV matcher.

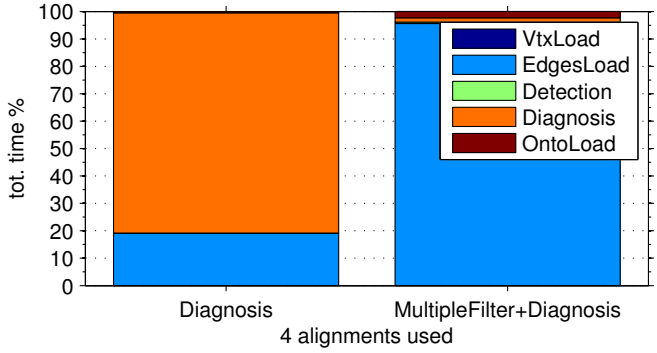


Figure 1.53: Runtime analysis for Autom matcher.

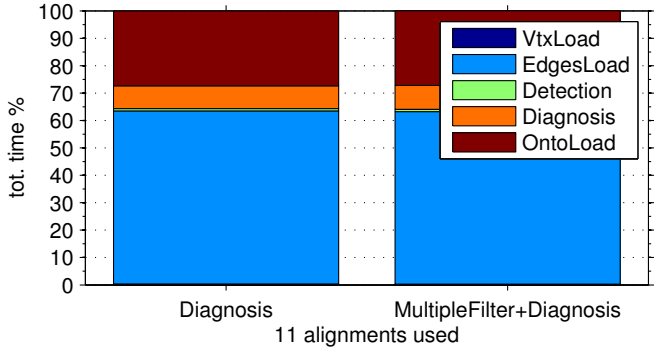


Figure 1.54: Runtime analysis for CIDER-CL matcher.

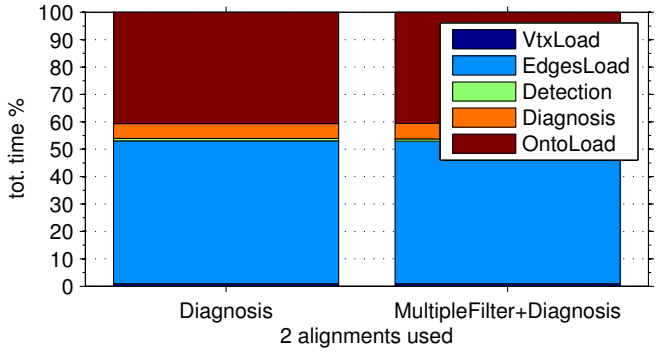


Figure 1.55: Runtime analysis for Codi matcher.

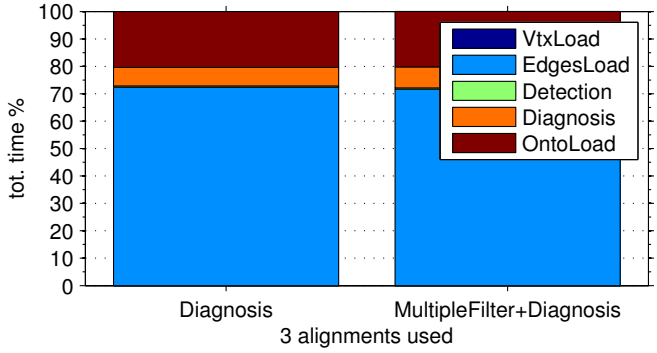


Figure 1.56: Runtime analysis for Cro-Matcher matcher.

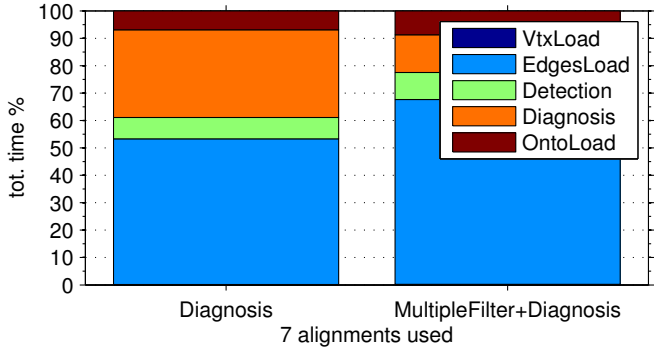


Figure 1.57: Runtime analysis for GommaBK matcher.

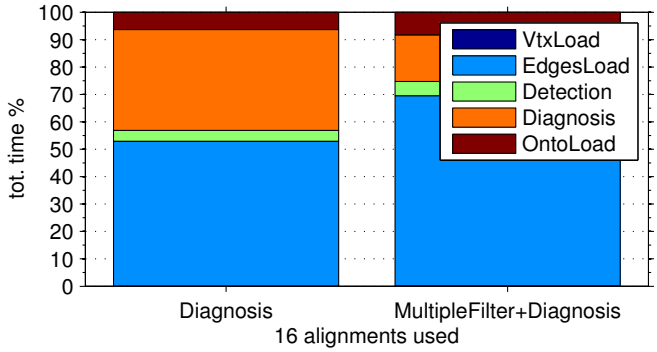


Figure 1.58: Runtime analysis for Gomma matcher.

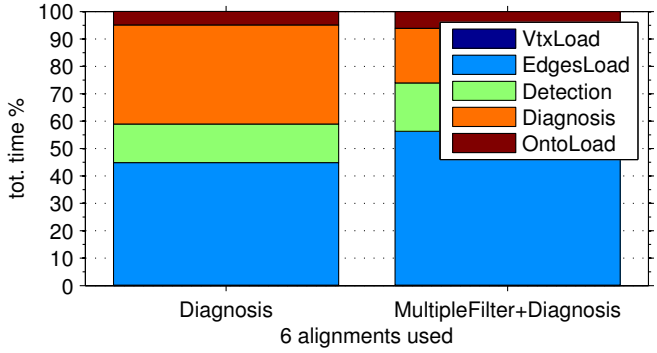


Figure 1.59: Runtime analysis for GommaSBK matcher.

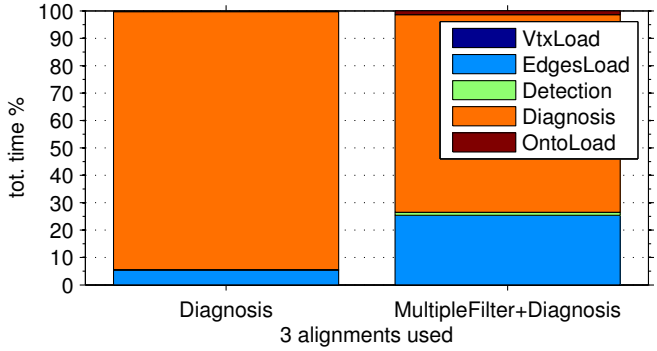


Figure 1.60: Runtime analysis for Hertuda matcher.

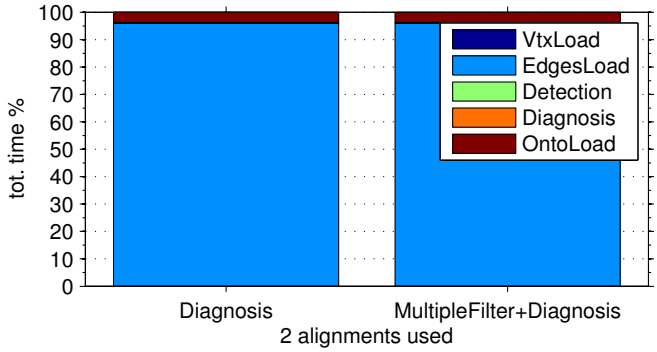


Figure 1.61: Runtime analysis for HotMatch matcher.

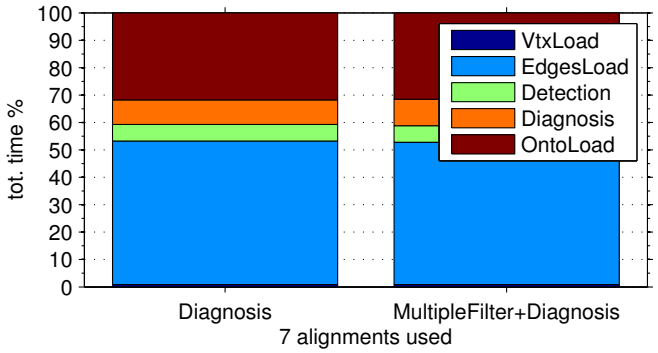


Figure 1.62: Runtime analysis for IAMA matcher.

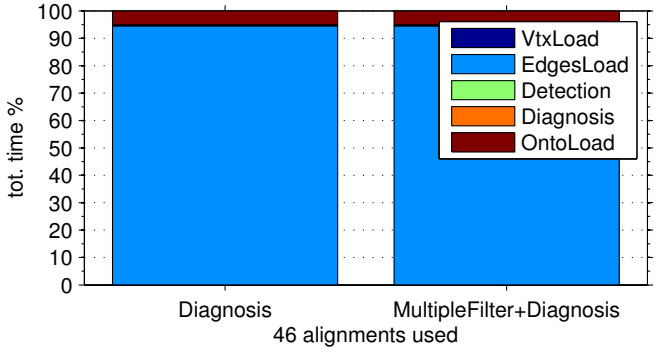


Figure 1.63: Runtime analysis for Lily matcher.

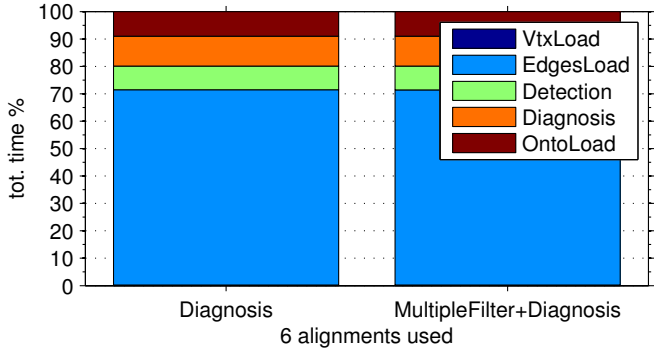


Figure 1.64: Runtime analysis for LogMap 2noe matcher.

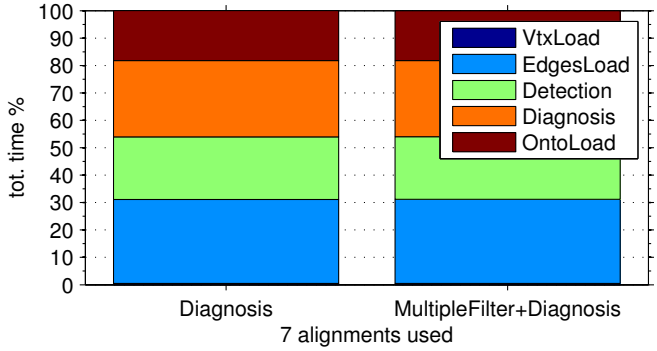


Figure 1.65: Runtime analysis for LogMapBio matcher.

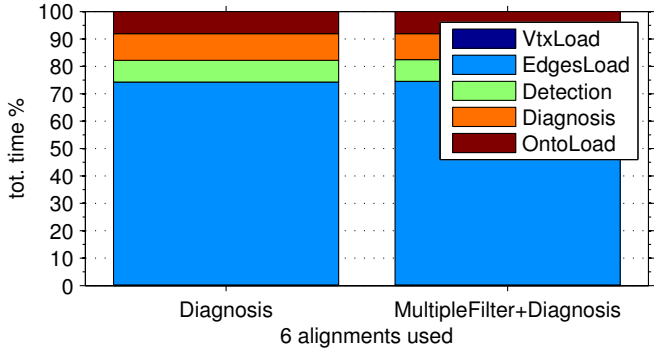


Figure 1.66: Runtime analysis for LogMapBK matcher.

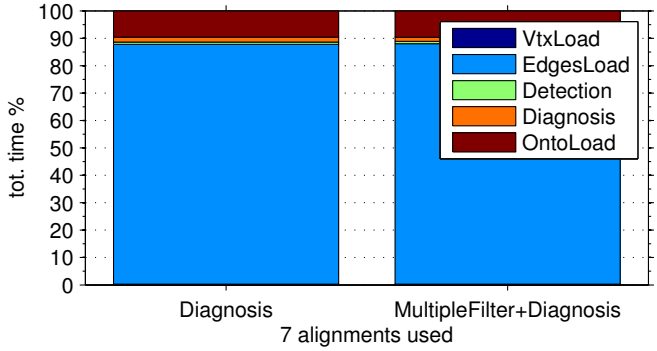


Figure 1.67: Runtime analysis for LogMapC matcher.

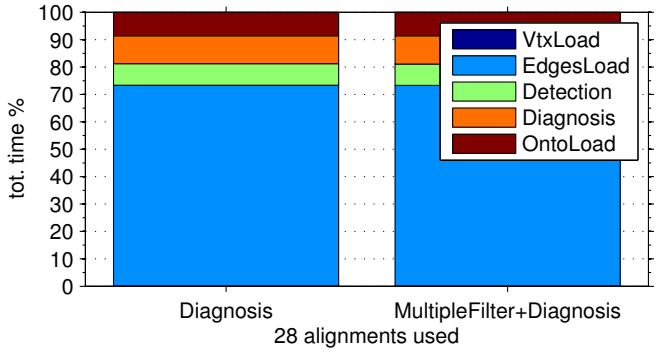


Figure 1.68: Runtime analysis for LogMap matcher.

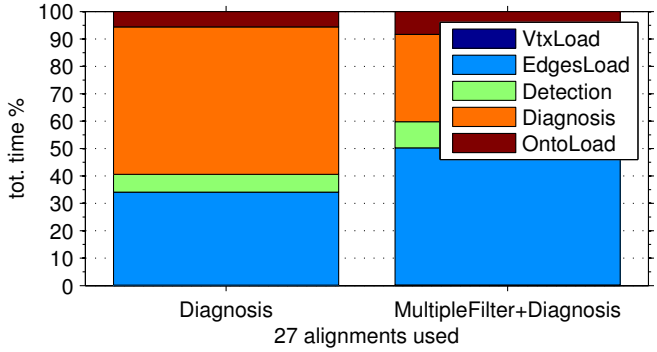


Figure 1.69: Runtime analysis for LogMapLt matcher.

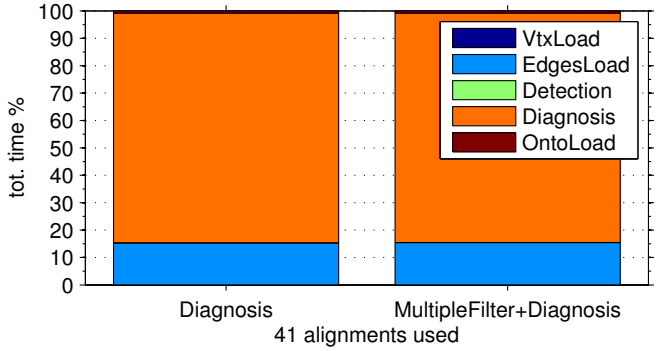


Figure 1.70: Runtime analysis for MaasMatch matcher.

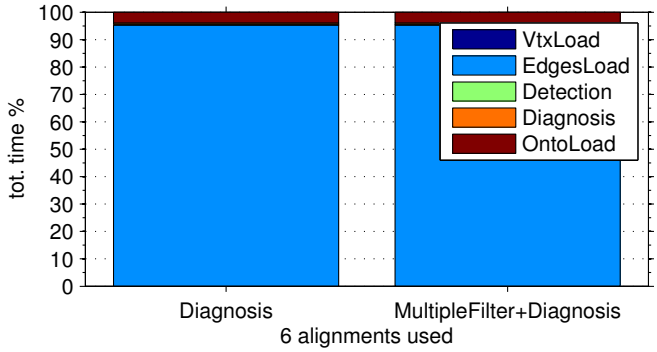


Figure 1.71: Runtime analysis for MapSSS matcher.

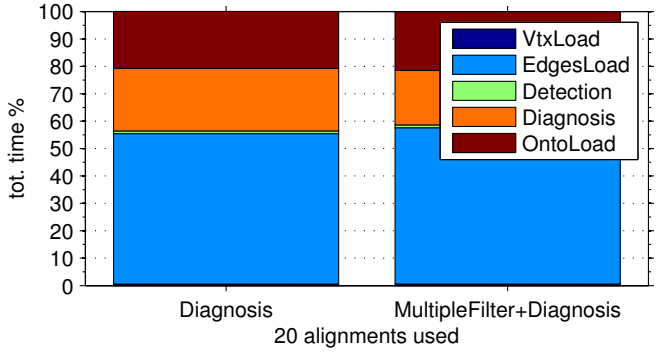


Figure 1.72: Runtime analysis for Medley matcher.

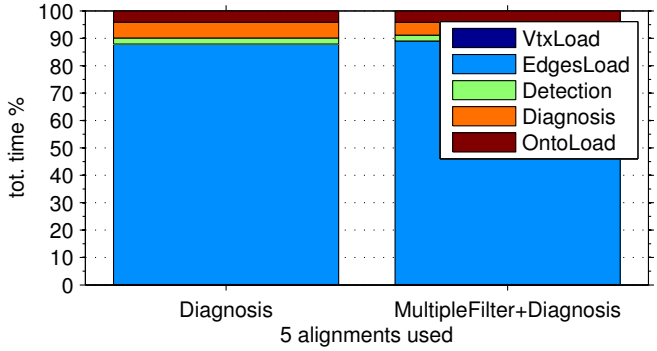


Figure 1.73: Runtime analysis for ODGOMS matcher.

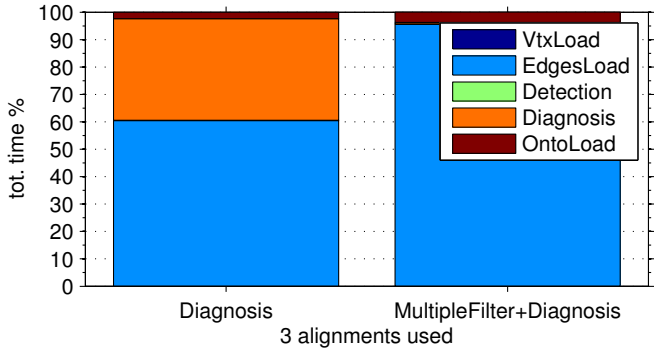


Figure 1.74: Runtime analysis for OMReasoner matcher.

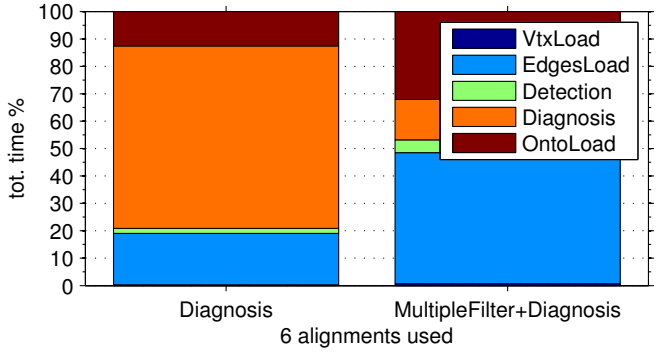


Figure 1.75: Runtime analysis for Optima matcher.

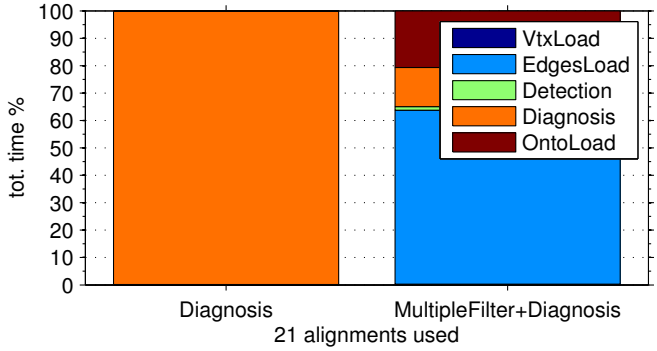


Figure 1.76: Runtime analysis for RIMOM matcher.

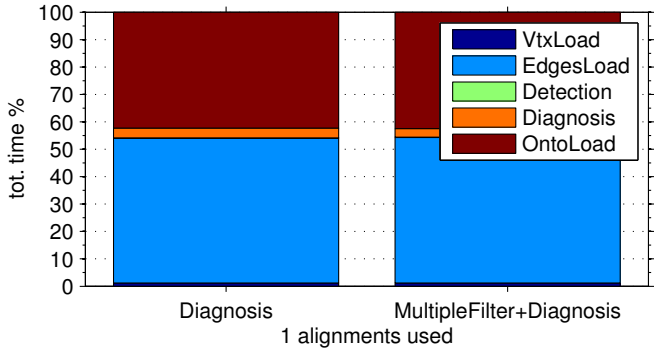


Figure 1.77: Runtime analysis for RSDLWB matcher.

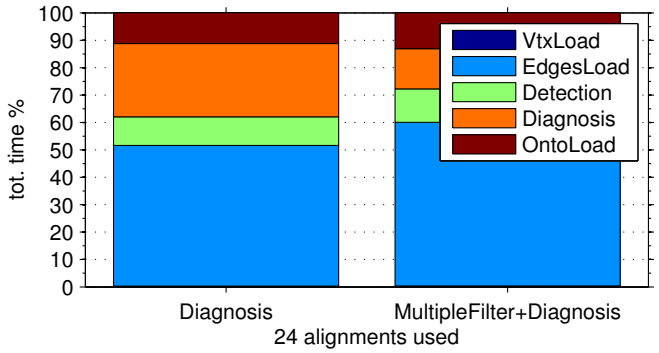


Figure 1.78: Runtime analysis for ServOMap matcher.

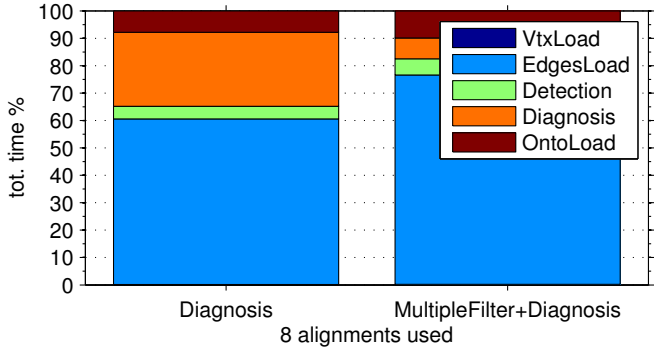


Figure 1.79: Runtime analysis for ServOMapL matcher.

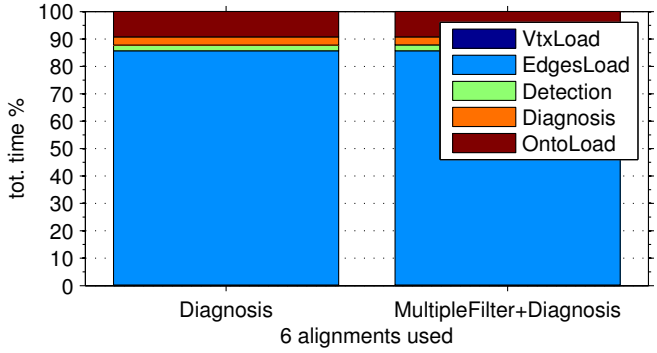


Figure 1.80: Runtime analysis for Sphere matcher.

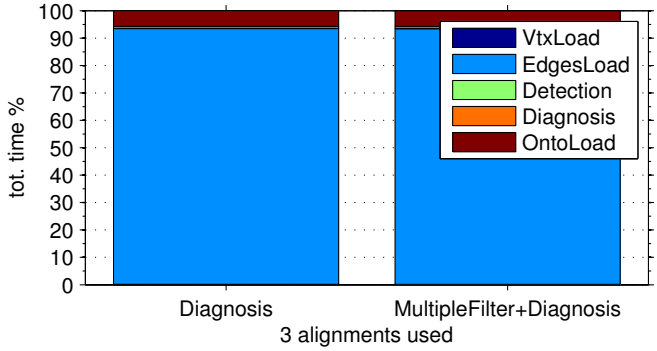


Figure 1.81: Runtime analysis for StringsAuto matcher.

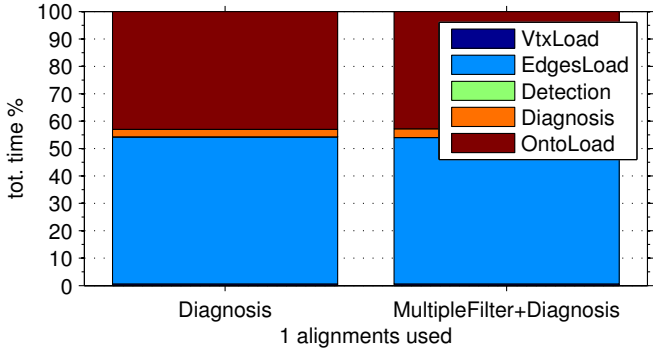


Figure 1.82: Runtime analysis for Toast matcher.

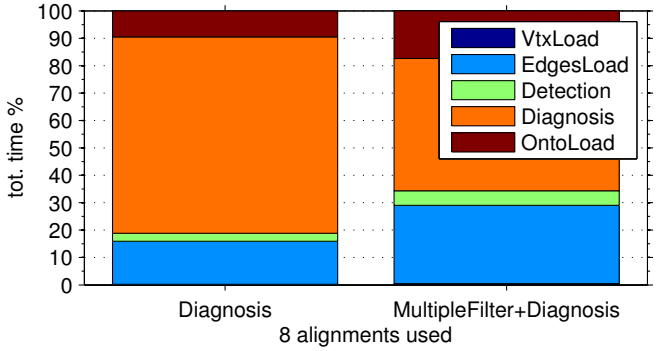


Figure 1.83: Runtime analysis for XMap matcher.

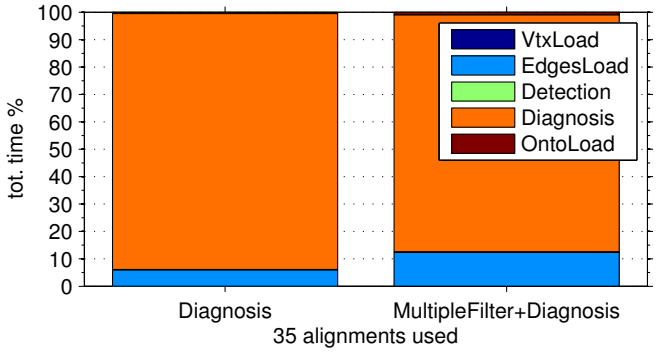


Figure 1.84: Runtime analysis for XMapGen matcher.

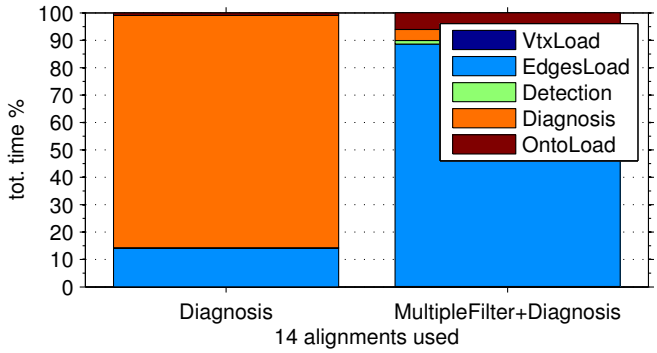


Figure 1.85: Runtime analysis for XMapSig matcher.

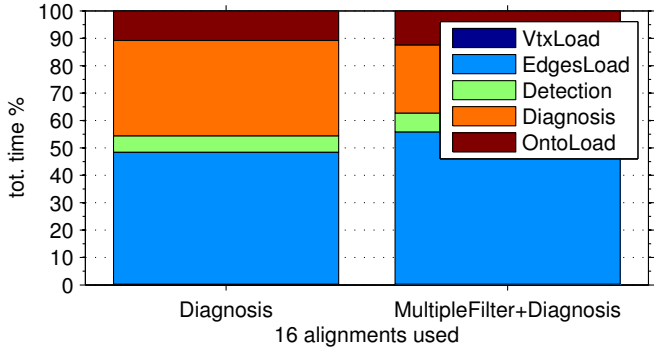


Figure 1.86: Runtime analysis for YAM++ matcher.

Chapter 2

OAEI Dataset Extended Analysis for Subsumption Violations

2.1 Analysis of Ontology Matchers Alignments (Extended)

In this section we present additional experimental results. More precisely, Tables 2.1–2.10 show the data splitted by track and aggregated by matcher, while the opposite order holds for Tables 2.11–**??**.

The different groupings confirm that the violation detection algorithm is more influenced by the size of the involved ontologies and mappings, while the time required by the repair algorithm is strongly correlated with the number of conservativity violations.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
aml	2,747(0)	3,306(0)	2,793(231)	2,918(2,556)	2,931(2,558)	2
amlbk	2,747(0)	3,306(0)	2,954(0)	4,724(0)	4,737(0)	1
aot	2,747(0)	3,306(0)	5,400(0)	24,968(0)	25,284(0)	1
aotl	2,747(0)	3,306(0)	336(0)	1,480(0)	1,514(0)	1
aroma	2,747(0)	3,306(0)	2,412(0)	1,981(0)	2,007(0)	1
cidercl	2,747(0)	3,306(0)	3,424(0)	47,155(0)	47,441(0)	1
codi	2,747(0)	3,306(0)	2,603(0)	2,409(0)	2,425(0)	1
gomma	2,747(0)	3,306(0)	2,717(312)	3,454(422)	3,474(437)	3
gommabk	2,747(0)	3,306(0)	3,077(0)	3,941(0)	3,979(0)	1
hertuda	2,747(0)	3,306(0)	2,960(0)	1,978(0)	2,056(0)	2
hotmatch	2,747(0)	3,306(0)	1,980(0)	619(0)	627(0)	2
iama	2,747(0)	3,306(0)	1,692(0)	396(0)	404(0)	1
logmap	2,747(0)	3,306(0)	2,802(5.2)	4,024(115)	4,060(119)	3
logmapbio	2,747(0)	3,306(0)	3,107(0)	5,771(0)	5,861(0)	1
logmapc	2,747(0)	3,306(0)	2,235(0)	0	2(0)	1
logmaplt	2,747(0)	3,306(0)	2,304(1.15)	2,984(3.46)	2,997(3.46)	3
maasmatch	2,747(0)	3,306(0)	3,959(1,551)	38,363(29,027)	38,535(29,133)	3
mapsss	2,747(0)	3,306(0)	2,512(122)	1,950(572)	1,964(569)	2
odgoms	2,747(0)	3,306(0)	2,206(0)	923(0)	936(0)	1
optima	2,747(0)	3,306(0)	2,076(0)	8,304(0)	8,456(0)	1
rsdlwb	2,747(0)	3,306(0)	1,891(0)	494(0)	504(0)	1
servomap	2,747(0)	3,306(0)	1,950(4.95)	747(69)	759(69)	2
servomapl	2,747(0)	3,306(0)	1,952(0)	2,435(0)	2,484(0)	1
stringsauto	2,747(0)	3,306(0)	2,634(0)	2,493(0)	2,511(0)	1
toast	2,747(0)	3,306(0)	2,678(0)	2,597(0)	2,612(0)	1
wesee	2,747(0)	3,306(0)	2,203(468)	4,082(4,452)	4,122(4,492)	2
wmatch	2,747(0)	3,306(0)	2,217(227)	850(407)	876(429)	2
xmap	2,747(0)	3,306(0)	2,740(0)	1,298(0)	1,311(0)	1
xmapgen	2,747(0)	3,306(0)	2,611(0)	15,411(0)	15,669(0)	1
xmapsig	2,747(0)	3,306(0)	2,387(0)	6,614(0)	6,799(0)	1
yam++	2,747(0)	3,306(0)	2,773(24)	1,123(7.78)	1,135(7.78)	2

Table 2.1: Measures related to problem size for *anatomy* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#**disj**	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$**(s)**	$\mathbf{t}_r$**(s)**	**basicViol**	**diff**$^{\approx}$
aml	2,918(2,556)	267(44)	0.83(0.05)	0.51(0.21)	0	2(0)
amlbk	4,724(0)	303(0)	0.66(0)	0.55(0)	0	2(0)
aot	24,968(0)	2,210(0)	1.18(0)	4.93(0)	0	2(0)
aotl	1,480(0)	86(0)	0.54(0)	0.14(0)	0	1(0)
aroma	1,981(0)	249(0)	0.81(0)	0.35(0)	0	2(0)
cidercl	47,155(0)	817(0)	2.11(0)	3.95(0)	0	3(0)
codi	2,409(0)	193(0)	0.63(0)	0.38(0)	0	2(0)
gomma	3,454(422)	311(94)	0.65(0.02)	0.43(0.03)	0	3.33(2.31)
gommabk	3,941(0)	420(0)	0.69(0)	0.49(0)	0	6(0)
hertuda	1,978(0)	1,092(0)	0.61(0.01)	12(0.14)	0	0
hotmatch	619(0)	135(0)	0.59(0.02)	0.21(0)	0	0
iama	396(0)	103(0)	0.58(0)	0.19(0)	0	0
logmap	4,024(115)	375(3.46)	0.69(0.02)	0.47(0.03)	0	2(0)
logmapbio	5,771(0)	547(0)	0.7(0)	0.63(0)	0	9(0)
logmapc	0	0	0.57(0)	0.2(0)	0	2(0)
logmaplt	2,984(3.46)	227(1.15)	0.63(0.02)	0.38(0.02)	0	2(0)
maasmatch	38,363(29,027)	1,013(697)	1.78(0.91)	2.52(1.75)	0	0.67(1.15)
mapsss	1,950(572)	232(29)	0.64(0.01)	0.32(0.07)	0	2(0)
odgoms	923(0)	140(0)	0.62(0)	0.22(0)	0	2(0)
optima	8,304(0)	371(0)	0.72(0)	0.62(0)	0	5(0)
rsdlwb	494(0)	115(0)	0.59(0)	0.2(0)	0	2(0)
servomap	747(69)	156(30)	0.59(0)	0.21(0)	0	1.5(0.71)
servomapl	2,435(0)	162(0)	0.63(0)	0.23(0)	0	2(0)
stringsauto	2,493(0)	308(0)	0.62(0)	0.39(0)	0	2(0)
toast	2,597(0)	311(0)	0.63(0)	0.32(0)	0	0
wesee	4,082(4,452)	224(3.54)	0.68(0.09)	0.6(0.49)	0	1(1.41)
wmatch	850(407)	294(215)	0.6(0.02)	0.28(0.1)	0	3(1.41)
xmap	1,298(0)	248(0)	0.59(0)	0.25(0)	0	2(0)
xmapgen	15,411(0)	508(0)	1.01(0)	0.55(0)	0	6(0)
xmapsig	6,614(0)	425(0)	0.74(0)	2.08(0)	0	8(0)
yam++	1,123(7.78)	266(4.24)	0.61(0.04)	0.25(0)	0	2(0)

Table 2.2: Measures related to solution size for *anatomy* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
aml	110(31)	121(43)	20(8.48)	1.55(3.4)	1.55(3.4)	42
amlbk	110(31)	121(44)	19(7.67)	1.24(2.84)	1.29(2.87)	21
aot	107(27)	123(44)	122(40)	106(230)	108(231)	20
aotl	110(31)	121(44)	29(12)	65(246)	66(249)	21
aroma	110(31)	121(44)	40(15)	24(36)	24(36)	21
ase	107(27)	123(44)	47(27)	64(136)	66(137)	20
autom	110(31)	121(44)	15(10)	0.43(1.08)	0.43(1.08)	21
cidercl	112(31)	118(42)	47(13)	30(57)	30(57)	20
codi	110(31)	121(44)	22(6.73)	2.29(4.19)	2.33(4.19)	21
cromatcher	107(36)	121(46)	81(22)	26(38)	27(38)	15
gomma	110(31)	121(44)	16(6.99)	0.14(0.36)	0.14(0.36)	21
hertuda	110(31)	121(43)	20(7.37)	0.43(0.97)	0.43(0.97)	42
hotmatch	110(31)	121(43)	21(8.37)	0.43(0.97)	0.43(0.97)	42
iama	110(31)	121(44)	18(7.26)	0.33(0.91)	0.33(0.91)	21
logmap	110(31)	121(43)	21(8.64)	1.71(1.97)	1.71(1.97)	63
logmapc	110(31)	121(44)	20(7.66)	0.24(0.89)	0.24(0.89)	21
logmaplt	110(31)	121(43)	20(7.79)	0.57(1.01)	0.57(1.01)	63
maasmatch	110(31)	121(43)	116(52)	63(80)	64(80)	63
mapsss	110(31)	121(43)	24(10)	4.81(12)	4.81(12)	42
medley	110(31)	121(44)	98(43)	92(185)	93(185)	21
odgoms	110(31)	121(43)	21(9.56)	2.52(7.98)	2.52(7.98)	42
omreasoner	110(31)	121(44)	17(6.78)	0.29(0.9)	0.29(0.9)	21
ontok2	110(31)	121(44)	18(6.73)	0.29(0.9)	0.29(0.9)	21
optima	110(31)	121(44)	31(11)	13(23)	13(23)	21
rimom	110(31)	121(44)	114(48)	134(105)	139(108)	21
rsdlwb	110(31)	121(44)	17(6.79)	0.33(0.91)	0.33(0.91)	21
servomap	110(31)	121(43)	20(7.88)	5.88(12)	5.9(12)	42
servomapl	110(31)	121(44)	13(5.35)	0.1(0.3)	0.1(0.3)	21
stringsauto	110(31)	121(44)	21(7.55)	2.29(4)	2.29(4)	21
synthesis	110(31)	121(44)	17(6.79)	0.33(0.91)	0.33(0.91)	21
wesee	110(31)	121(43)	17(6.63)	0.33(0.82)	0.33(0.82)	42
wmatch	110(31)	121(43)	20(7.55)	0.38(0.96)	0.38(0.96)	42
xmap	110(31)	121(44)	16(5.52)	0.1(0.3)	0.1(0.3)	21
xmapgen	110(31)	121(43)	29(15)	51(276)	52(277)	42
xmapsig	110(31)	121(43)	18(7.74)	2.45(8.47)	2.6(8.51)	42
yam++	110(31)	121(43)	25(10)	2.62(5.83)	2.71(6.03)	42

Table 2.3: Measures related to problem size for *conference* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
aml	1.55(3.4)	0.83(1.51)	0.06(0.06)	0	0.05(0.22)	0.05(0.22)
amlbk	1.24(2.84)	0.71(1.55)	0.05(0.07)	0	0.05(0.22)	0.05(0.22)
aot	106(230)	13(15)	0.32(0.73)	0.01(0.01)	0.1(0.45)	0.65(0.88)
aotl	65(246)	4.81(5.69)	0.35(1.38)	0	0	0
aroma	24(36)	4.52(4.34)	0.09(0.14)	0.01(0)	0.29(1.31)	0.29(1.31)
ase	64(136)	7.85(9.29)	0.11(0.31)	0	0.15(0.49)	0.75(1.12)
autom	0.43(1.08)	0.29(0.78)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
cidercl	30(57)	3.9(3.06)	0.13(0.33)	0	0.55(1.7)	0.55(1.7)
codi	2.29(4.19)	1.19(1.33)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
cromatcher	26(38)	8.41(6.59)	0.15(0.36)	0	0.13(0.52)	0.13(0.52)
gomma	0.14(0.36)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
hertuda	0.43(0.97)	0.33(0.72)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
hotmatch	0.43(0.97)	0.33(0.72)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
iama	0.33(0.91)	0.19(0.51)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
logmap	1.71(1.97)	1.27(1.61)	0.05(0.06)	0	0.05(0.21)	0.05(0.21)
logmapc	0.24(0.89)	0.1(0.44)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)
logmaplt	0.57(1.01)	0.52(0.86)	0.04(0.05)	0	0.05(0.21)	0.05(0.21)
maasmatch	63(80)	14(9.8)	1.46(5.59)	0	1.35(5.18)	1.35(5.18)
mapsss	4.81(12)	1.5(2.55)	0.04(0.05)	0	0.07(0.34)	0.07(0.34)
medley	92(185)	14(14)	0.34(0.75)	0	0.24(0.89)	0.24(0.89)
odgoms	2.52(7.98)	0.64(1.25)	0.04(0.05)	0	0.1(0.37)	0.1(0.37)
omreasoner	0.29(0.9)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
ontok2	0.29(0.9)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
optima	13(23)	3.48(2.94)	0.07(0.12)	0	0.05(0.22)	0.05(0.22)
rimom	134(105)	49(39)	0.84(2.92)	0.19(0.62)	0.05(0.22)	0.05(0.22)
rsdlwb	0.33(0.91)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
servomap	5.88(12)	1.43(2.26)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)
servomapl	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
stringsauto	2.29(4)	1.1(1.48)	0.07(0.16)	0	0.19(0.6)	0.19(0.6)
synthesis	0.33(0.91)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
wesee	0.33(0.82)	0.26(0.63)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)
wmatch	0.38(0.96)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
xmap	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
xmapgen	51(276)	3.81(8.11)	0.05(0.07)	0	0.05(0.22)	0.21(0.47)
xmapsig	2.45(8.47)	0.67(1.49)	0.04(0.05)	0	0.05(0.22)	0.07(0.26)
yam++	2.62(5.83)	1.24(2.07)	0.06(0.08)	0	0.05(0.22)	0.05(0.22)

Table 2.4: Measures related to solution size for *conference* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
aml	21,693(23,022)	14,674(7,880)	15,421(10,002)	215,834(242,873)	224,179(254,295)	6
amlbk	21,693(25,739)	14,674(8,811)	15,495(11,005)	219,971(272,276)	227,701(283,698)	3
amlbkr	21,693(25,739)	14,674(8,811)	14,786(10,488)	245,953(331,944)	254,650(345,368)	3
amlbku	21,693(25,739)	14,674(8,811)	20,059(15,225)	221,545(218,703)	228,305(228,328)	3
amlbkur	21,693(25,739)	14,674(8,811)	19,019(14,558)	322,967(410,312)	333,571(426,199)	3
amlr	21,693(25,739)	14,674(8,811)	14,391(10,196)	241,692(326,635)	249,814(339,199)	3
aot	3,720(0)	6,551(0)	7,392(0)	28,182(0)	28,288(0)	1
aotl	3,720(0)	6,551(0)	1,580(0)	7,025(0)	7,039(0)	1
aroma	21,693(25,739)	14,674(8,811)	13,054(9,483)	248,316(222,830)	254,236(229,364)	3
autom	3,720(0)	6,551(0)	3,618(0)	6,197(0)	6,225(0)	1
gomma	21,693(23,022)	14,674(7,880)	11,232(7,708)	75,020(91,435)	78,498(96,431)	6
gommabk	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	3
gommasbk	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	3
hertuda	6,951(3,730)	9,991(3,972)	7,360(1,453)	37,745(13,274)	38,267(13,720)	4
hotmatch	6,951(3,730)	9,991(3,972)	4,419(163)	7,281(1,396)	7,367(1,312)	4
iama	21,693(25,739)	14,674(8,811)	7,605(7,990)	40,568(62,906)	41,750(64,929)	3
logmap	21,693(22,291)	14,674(7,630)	15,046(9,818)	310,975(410,621)	321,205(425,060)	9
logmap2noe	21,693(25,739)	14,674(8,811)	14,949(10,959)	270,028(396,794)	279,099(411,340)	3
logmapbio	21,693(25,739)	14,674(8,811)	15,792(11,738)	395,781(589,758)	409,235(611,467)	3
logmapbk	21,693(25,739)	14,674(8,811)	15,299(11,519)	320,091(479,286)	330,268(495,804)	3
logmapc	21,693(25,739)	14,674(8,811)	9,472(6,744)	601(944)	914(1,268)	3
logmaplt	21,693(22,291)	14,674(7,630)	10,056(8,923)	101,460(138,569)	105,338(144,264)	9
maasmatch	5,335(3,231)	8,271(3,440)	9,244(4,707)	185,844(334,586)	188,388(339,418)	4
mapsss	21,693(25,739)	14,674(8,811)	9,699(8,475)	166,075(243,308)	170,587(250,527)	3
odgoms	6,951(3,730)	9,991(3,972)	6,600(3,499)	39,797(52,680)	40,336(53,621)	4
omreasoner	21,693(25,739)	14,674(8,811)	6,668(6,559)	26,172(34,065)	26,906(35,270)	3
rsdlwb	3,720(0)	6,551(0)	1,456(0)	830(0)	830(0)	1
servomap	21,693(23,022)	14,674(7,880)	13,398(8,550)	163,725(151,703)	168,588(157,448)	6
servomapl	21,693(25,739)	14,674(8,811)	13,696(9,303)	137,511(149,148)	143,138(157,864)	3
sphere	21,693(25,739)	14,674(8,811)	8,883(8,605)	114,132(185,194)	117,527(190,779)	3
stringsauto	3,720(0)	6,551(0)	3,880(0)	8,312(0)	8,321(0)	1
wmatch	3,720(0)	6,551(0)	6,356(0)	15,581(0)	15,794(0)	1
xmap	21,693(25,739)	14,674(8,811)	16,213(11,624)	252,390(286,300)	261,393(299,637)	3
xmapgen	6,951(4,569)	9,991(4,864)	3,514(198)	21,100(2,077)	21,231(2,158)	2
xmapsig	6,951(4,569)	9,991(4,864)	3,145(24)	11,635(2,056)	11,716(1,986)	2
yam++	21,693(23,022)	14,674(7,880)	13,955(8,287)	119,698(109,862)	124,698(116,612)	6

Table 2.5: Measures related to problem size for *largebio-big* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
aml	215,834(242,873)	3,950(3,136)	32(24)	200(298)	48(49)	262(263)
amlbk	219,971(272,276)	3,586(3,175)	29(20)	165(255)	59(53)	262(336)
amlbkr	245,953(331,944)	3,862(3,320)	30(25)	164(252)	61(54)	239(288)
amlbku	221,545(218,703)	6,397(5,274)	26(16)	128(173)	90(83)	540(720)
amlbkur	322,967(410,312)	6,885(5,928)	31(27)	477(764)	271(248)	775(780)
amlr	241,692(326,635)	3,652(3,068)	31(25)	168(258)	38(56)	190(209)
aot	28,182(0)	1,204(0)	25(0)	2.41(0)	1,289(0)	1,318(0)
aotl	7,025(0)	219(0)	15(0)	0.65(0)	12(0)	13(0)
aroma	248,316(222,830)	2,911(2,222)	31(17)	115(146)	35(58)	109(106)
autom	6,197(0)	488(0)	53(0)	1.07(0)	37(0)	37(0)
gomma	75,020(91,435)	2,254(1,977)	21(9.54)	53(75)	37(51)	154(138)
gommabk	135,638(128,895)	3,611(2,288)	25(13)	76(102)	101(90)	307(273)
gommasbk	135,638(128,895)	3,621(2,293)	24(11)	77(102)	101(90)	312(270)
hertuda	37,745(13,274)	3,320(249)	15(2.19)	44(38)	51(58)	73(40)
hotmatch	7,281(1,396)	452(51)	14(3.17)	3.04(1.84)	55(64)	56(64)
iama	40,568(62,906)	1,154(1,446)	16(4.87)	26(42)	13(21)	95(134)
logmap	310,975(410,621)	4,358(3,511)	35(30)	375(552)	165(171)	462(572)
logmap2noe	270,028(396,794)	4,249(3,806)	33(31)	267(442)	154(180)	409(588)
logmapbio	395,781(589,758)	5,014(4,294)	37(37)	467(784)	197(248)	545(757)
logmapbk	320,091(479,286)	4,514(4,134)	33(31)	412(690)	171(204)	477(671)
logmapc	601(944)	61(105)	14(2.04)	9.27(13)	48(55)	321(245)
logmaplt	101,460(138,569)	2,355(2,589)	21(11)	76(110)	34(51)	143(123)
maasmatch	185,844(334,586)	1,809(2,272)	29(30)	56(109)	27(53)	50(58)
mapsss	166,075(243,308)	1,794(1,864)	26(19)	100(157)	12(21)	42(17)
odgoms	39,797(52,680)	1,044(816)	16(2.6)	12(16)	51(58)	61(52)
omreasoner	26,172(34,065)	1,127(964)	14(2.62)	27(28)	12(21)	20(19)
rsdlwb	830(0)	115(0)	16(0)	0.59(0)	0	0
servomap	163,725(151,703)	3,838(3,020)	25(12)	144(194)	36(51)	166(199)
servomapl	137,511(149,148)	2,804(2,057)	25(16)	96(146)	45(57)	207(263)
sphere	114,132(185,194)	1,536(1,897)	22(15)	66(110)	36(57)	298(310)
stringsauto	8,312(0)	491(0)	18(0)	1.37(0)	0	0
wmatch	15,581(0)	1,342(0)	65(0)	2.01(0)	109(0)	120(0)
xmap	252,390(286,300)	3,529(2,945)	35(27)	140(204)	39(55)	197(194)
xmapgen	21,100(2,077)	696(175)	14(4.18)	3.93(3.11)	76(107)	77(105)
xmapsig	11,635(2,056)	571(112)	14(3.44)	2.66(1.81)	76(107)	77(105)
yam++	119,698(109,862)	3,156(2,327)	24(12)	86(115)	37(51)	134(143)

Table 2.6: Measures related to solution size for *largebio-big* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
aml	93,534(22,451)	85,449(28,714)	13,639(8,319)	230,361(129,032)	235,186(133,764)	6
amlbk	93,534(25,101)	85,449(32,104)	13,579(8,590)	212,145(113,411)	216,817(117,573)	3
amlbkr	93,534(25,101)	85,449(32,104)	13,101(8,359)	157,574(74,191)	161,298(78,284)	3
amlbku	93,534(25,101)	85,449(32,104)	19,830(14,843)	567,664(315,502)	577,846(320,551)	3
amlbkur	93,534(25,101)	85,449(32,104)	18,794(14,226)	650,070(518,940)	664,715(538,187)	3
amlr	93,534(25,101)	85,449(32,104)	12,326(8,334)	128,573(68,647)	131,119(71,244)	3
aroma	39,716(15,317)	74,099(68,477)	6,353(1,922)	186,817(187,310)	189,206(190,585)	2
gomma	80,426(37,674)	75,739(39,260)	13,884(8,788)	121,309(88,700)	124,717(93,074)	6
gommabk	67,317(49,018)	66,029(50,398)	20,916(13,073)	287,030(240,330)	302,802(253,127)	3
gommasbk	93,534(25,101)	85,449(32,104)	21,163(13,240)	339,468(217,729)	354,542(228,438)	3
iama	93,534(25,101)	85,449(32,104)	8,224(8,200)	70,382(68,248)	71,704(70,323)	3
logmap	84,795(32,978)	78,976(35,279)	13,859(8,228)	248,954(189,568)	254,780(195,939)	9
logmap2noe	67,317(49,018)	66,029(50,398)	14,724(10,597)	254,161(291,205)	260,649(300,093)	3
logmapbio	93,534(25,101)	85,449(32,104)	15,170(9,169)	437,916(288,984)	447,274(300,722)	3
logmapbk	93,534(25,101)	85,449(32,104)	14,009(9,664)	307,501(250,183)	313,459(257,919)	3
logmapc	93,534(25,101)	85,449(32,104)	9,218(6,134)	3,289(5,638)	3,674(6,257)	3
logmaplt	84,795(32,978)	78,976(35,279)	12,040(10,338)	131,297(118,953)	134,761(123,824)	9
mapsss	28,885(0)	25,678(0)	5,168(0)	7,323(0)	7,431(0)	1
omreasoner	79,042(0)	66,914(0)	2,806(0)	43,387(0)	43,392(0)	1
servomap	80,426(37,674)	75,739(39,260)	14,768(9,385)	590,365(460,575)	598,986(465,565)	6
servomapl	67,317(49,018)	66,029(50,398)	14,658(10,230)	472,031(396,955)	481,518(405,818)	3
sphere	93,534(25,101)	85,449(32,104)	9,779(8,466)	91,762(80,985)	93,900(84,419)	3
xmap	93,534(25,101)	85,449(32,104)	16,015(10,080)	343,203(262,277)	352,327(272,970)	3
yam++	80,426(37,674)	75,739(39,260)	14,992(9,099)	357,923(255,685)	364,813(257,489)	6

Table 2.7: Measures related to problem size for *largebio-small* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#**disj**	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$**(s)**	$\mathbf{t}_r$**(s)**	**basicViol**	**diff**$^{\approx}$
aml	230,361(129,032)	2,785(2,091)	49(34)	288(219)	24(57)	129(168)
amlbk	212,145(113,411)	2,485(1,900)	58(45)	285(214)	0	74(100)
amlbkr	157,574(74,191)	2,467(1,940)	40(28)	199(154)	1(1.73)	68(108)
amlbku	567,664(315,502)	5,786(4,719)	73(56)	619(427)	2.33(4.04)	464(470)
amlbkur	650,070(518,940)	6,142(5,484)	90(110)	746(769)	19(32)	534(571)
amlr	128,573(68,647)	2,194(1,852)	36(23)	176(135)	1(1.73)	40(62)
aroma	186,817(187,310)	1,244(296)	67(86)	313(422)	0	31(35)
gomma	121,309(88,700)	2,622(2,080)	75(50)	199(168)	26(57)	120(91)
gommabk	287,030(240,330)	4,739(3,099)	113(57)	306(258)	35(39)	1,899(2,299)
gommasbk	339,468(217,729)	4,733(2,959)	53(39)	349(245)	7.67(10)	1,894(2,406)
iama	70,382(68,248)	1,339(1,500)	45(30)	137(105)	0	72(122)
logmap	248,954(189,568)	3,363(2,356)	69(45)	299(249)	14(35)	154(191)
logmap2noe	254,161(291,205)	3,583(2,987)	121(66)	337(376)	39(60)	186(213)
logmapbio	437,916(288,984)	4,155(2,462)	63(57)	457(397)	2(3.46)	289(261)
logmapbk	307,501(250,183)	3,553(2,842)	53(46)	353(339)	1(1.73)	165(268)
logmapc	3,289(5,638)	158(255)	33(22)	70(46)	1.33(2.31)	105(170)
logmaplt	131,297(118,953)	2,756(2,422)	74(50)	189(146)	17(36)	96(108)
mapsss	7,323(0)	586(0)	159(0)	7.72(0)	246(0)	259(0)
omreasoner	43,387(0)	222(0)	20(0)	30(0)	0	0
servomap	590,365(460,575)	3,748(2,957)	140(70)	842(657)	20(43)	138(167)
servomapl	472,031(396,955)	3,246(2,468)	146(32)	590(524)	67(60)	205(232)
sphere	91,762(80,985)	1,595(1,645)	41(29)	160(134)	0.67(1.15)	159(207)
xmap	343,203(262,277)	3,317(2,495)	84(73)	418(369)	3.33(5.77)	62(86)
yam++	357,923(255,685)	3,471(2,358)	101(56)	426(309)	25(45)	133(116)

Table 2.8: Measures related to solution size for *largebio-small* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
aml	6,575(0)	8,376(0)	7,813(1,567)	5,554,328(8,718,087)	5,592,164(8,762,163)	3
codi	6,575(0)	8,376(0)	6,570(0)	285,361(0)	290,785(0)	1
gomma	6,575(0)	8,376(0)	10,126(0)	19,061,985(0)	19,155,578(0)	1
hertuda	6,575(0)	8,376(0)	12,032(0)	26,673,406(0)	26,782,359(0)	2
hotmatch	6,575(0)	8,376(0)	5,260(0)	93,701(0)	95,671(0)	2
iama	6,575(0)	8,376(0)	378(0)	1,236(0)	1,325(0)	1
logmap	6,575(0)	8,376(0)	5,835(276)	178,311(31,385)	183,506(31,861)	4
logmapc	6,575(0)	8,376(0)	2,925(0)	0	86(0)	1
logmaplt	6,575(0)	8,376(0)	8,192(25)	9,124,527(82,467)	9,197,059(82,930)	3
maasmatch	6,575(0)	8,376(0)	8,922(0)	10,298,959(0)	10,388,940(0)	1
mapsss	6,575(0)	8,376(0)	2,208(0)	125,070(0)	128,387(0)	1
odgoms	6,575(0)	8,376(0)	7,794(0)	427,728(0)	433,421(0)	1
optima	6,575(0)	8,376(0)	1,380(0)	89,379(0)	91,098(0)	1
rsdlwb	6,575(0)	8,376(0)	342(0)	495(0)	510(0)	1
servomap	6,575(0)	8,376(0)	6,379(1,761)	2,030,701(2,797,469)	2,049,668(2,822,695)	2
servomapl	6,575(0)	8,376(0)	6,482(0)	1,718,682(0)	1,743,115(0)	1
stringsauto	6,575(0)	8,376(0)	1,624(0)	7,205(0)	7,334(0)	1
wesee	6,575(0)	8,376(0)	5,870(0)	125,803(0)	128,682(0)	1
xmap	6,575(0)	8,376(0)	11,948(0)	24,398,269(0)	24,507,254(0)	1
xmapsig	6,575(0)	8,376(0)	2,870(0)	108,042(0)	111,957(0)	1
yam++	6,575(0)	8,376(0)	7,746(274)	2,449,208(862,134)	2,477,373(870,637)	2

Table 2.9: Measures related to problem size for *library* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$
aml	5,554,328(8,718,087)	3,729(1,397)	51(70)	1,806(2,945)	0	117(29)
codi	285,361(0)	1,968(0)	8.24(0)	54(0)	0	2(0)
gomma	19,061,985(0)	5,887(0)	165(0)	6,656(0)	0	123(0)
hertuda	26,673,406(0)	7,650(0)	248(0.59)	12,155(430)	0	116(0)
hotmatch	93,701(0)	1,287(0.71)	3.79(0.04)	20(1.78)	0	7(0)
iama	1,236(0)	47(0)	1.09(0)	0.72(0)	0	11(0)
logmap	178,311(31,385)	2,265(140)	5.53(0.38)	32(3.02)	0	92(4.27)
logmapc	0	0	1.21(0)	1.19(0)	0	86(0)
logmaplt	9,124,527(82,467)	4,292(49)	76(1.19)	3,151(567)	0	101(6.93)
maasmatch	10,298,959(0)	3,624(0)	86(0)	1,538(0)	0	6(0)
mapsss	125,070(0)	445(0)	3.95(0)	19(0)	0	0
odgoms	427,728(0)	3,548(0)	7.92(0)	103(0)	0	62(0)
optima	89,379(0)	469(0)	3.63(0)	13(0)	0	0
rsdlwb	495(0)	31(0)	1.09(0)	0.65(0)	0	0
servomap	2,030,701(2,797,469)	2,400(1,642)	21(25)	657(913)	0	81(115)
servomapl	1,718,682(0)	2,505(0)	21(0)	339(0)	0	66(0)
stringsauto	7,205(0)	246(0)	1.67(0)	1.89(0)	0	1(0)
wesee	125,803(0)	1,613(0)	5.1(0)	29(0)	0	9(0)
xmap	24,398,269(0)	7,466(0)	231(0)	11,954(0)	0	127(0)
xmapsig	108,042(0)	813(0)	3.79(0)	20(0)	0	28(0)
yam++	2,449,208(862,134)	3,608(197)	29(9.35)	766(367)	0	90(79)

Table 2.10: Measures related to solution size for *library* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	14,786(10,488)	245,953(331,944)	254,650(345,368)	3
largebio_small	93,534(25,101)	85,449(32,104)	13,101(8,359)	157,574(74,191)	161,298(78,284)	3

Table 2.11: Measures related to problem size for AML-BKR in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	$\mathsf{diff}^{\approx}$
largebio_big	245,953(331,944)	3,862(3,320)	30(25)	164(252)	61(54)	239(288)
largebio_small	157,574(74,191)	2,467(1,940)	40(28)	199(154)	1(1.73)	68(108)

Table 2.12: Measures related to solution size for AML-BKR in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,954(0)	4,724(0)	4,737(0)	1
conference	110(31)	121(44)	19(7.67)	1.24(2.84)	1.29(2.87)	21
largebio_big	21,693(25,739)	14,674(8,811)	15,495(11,005)	219,971(272,276)	227,701(283,698)	3
largebio_small	93,534(25,101)	85,449(32,104)	13,579(8,590)	212,145(113,411)	216,817(117,573)	3

Table 2.13: Measures related to problem size for AML-BK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	4,724(0)	303(0)	0.66(0)	0.55(0)	0	2(0)
conference	1.24(2.84)	0.71(1.55)	0.05(0.07)	0	0.05(0.22)	0.05(0.22)
largebio_big	219,971(272,276)	3,586(3,175)	29(20)	165(255)	59(53)	262(336)
largebio_small	212,145(113,411)	2,485(1,900)	58(45)	285(214)	0	74(100)

Table 2.14: Measures related to solution size for AML-BK in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	19,019(14,558)	322,967(410,312)	333,571(426,199)	3
largebio_small	93,534(25,101)	85,449(32,104)	18,794(14,226)	650,070(518,940)	664,715(538,187)	3

Table 2.15: Measures related to problem size for AML-BKUR in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$**disj**	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$**(s)**	$\mathbf{t}_r$**(s)**	**basicViol**	**diff**$^{\approx}$
largebio_big	322,967(410,312)	6,885(5,928)	31(27)	477(764)	271(248)	775(780)
largebio_small	650,070(518,940)	6,142(5,484)	90(110)	746(769)	19(32)	534(571)

Table 2.16: Measures related to solution size for AML-BKUR in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	20,059(15,225)	221,545(218,703)	228,305(228,328)	3
largebio_small	93,534(25,101)	85,449(32,104)	19,830(14,843)	567,664(315,502)	577,846(320,551)	3

Table 2.17: Measures related to problem size for AML-BKU in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	$t_{r^{\cdot}}$(s)	basicViol	diff$^{\approx}$
largebio_big	221,545(218,703)	6,397(5,274)	26(16)	128(173)	90(83)	540(720)
largebio_small	567,664(315,502)	5,786(4,719)	73(56)	619(427)	2.33(4.04)	464(470)

Table 2.18: Measures related to solution size for AML-BKU in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	14,391(10,196)	241,692(326,635)	249,814(339,199)	3
largebio_small	93,534(25,101)	85,449(32,104)	12,326(8,334)	128,573(68,647)	131,119(71,244)	3

Table 2.19: Measures related to problem size for AML-R in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	$t_{r^{\cdot}}$(s)	basicViol	diff$^{\approx}$
largebio_big	241,692(326,635)	3,652(3,068)	31(25)	168(258)	38(56)	190(209)
largebio_small	128,573(68,647)	2,194(1,852)	36(23)	176(135)	1(1.73)	40(62)

Table 2.20: Measures related to solution size for AML-R in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,793(231)	2,918(2,556)	2,931(2,558)	2
conference	110(31)	121(43)	20(8.48)	1.55(3.4)	1.55(3.4)	42
largebio_big	21,693(23,022)	14,674(7,880)	15,421(10,002)	215,834(242,873)	224,179(254,295)	6
largebio_small	93,534(22,451)	85,449(28,714)	13,639(8,319)	230,361(129,032)	235,186(133,764)	6
library	6,575(0)	8,376(0)	7,813(1,567)	5,554,328(8,718,087)	5,592,164(8,762,163)	3

Table 2.21: Measures related to problem size for AML in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	2,918(2,556)	267(44)	0.83(0.05)	0.51(0.21)	0	2(0)
conference	1.55(3.4)	0.83(1.51)	0.06(0.06)	0	0.05(0.22)	0.05(0.22)
largebio_big	215,834(242,873)	3,950(3,136)	32(24)	200(298)	48(49)	262(263)
largebio_small	230,361(129,032)	2,785(2,091)	49(34)	288(219)	24(57)	129(168)
library	5,554,328(8,718,087)	3,729(1,397)	51(70)	1,806(2,945)	0	117(29)

Table 2.22: Measures related to solution size for AML in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	336(0)	1,480(0)	1,514(0)	1
conference	110(31)	121(44)	29(12)	65(246)	66(249)	21
largebio_big	3,720(0)	6,551(0)	1,580(0)	7,025(0)	7,039(0)	1

Table 2.23: Measures related to problem size for AOTL in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	1,480(0)	86(0)	0.54(0)	0.14(0)	0	1(0)
conference	65(246)	4.81(5.69)	0.35(1.38)	0	0	0
largebio_big	7,025(0)	219(0)	15(0)	0.65(0)	12(0)	13(0)

Table 2.24: Measures related to solution size for AOTL in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	5,400(0)	24,968(0)	25,284(0)	1
conference	107(27)	123(44)	122(40)	106(230)	108(231)	20
largebio_big	3,720(0)	6,551(0)	7,392(0)	28,182(0)	28,288(0)	1

Table 2.25: Measures related to problem size for AOT in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	24,968(0)	2,210(0)	1.18(0)	4.93(0)	0	2(0)
conference	106(230)	13(15)	0.32(0.73)	0.01(0.01)	0.1(0.45)	0.65(0.88)
largebio_big	28,182(0)	1,204(0)	25(0)	2.41(0)	1,289(0)	1,318(0)

Table 2.26: Measures related to solution size for AOT in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,412(0)	1,981(0)	2,007(0)	1
conference	110(31)	121(44)	40(15)	24(36)	24(36)	21
largebio_big	21,693(25,739)	14,674(8,811)	13,054(9,483)	248,316(222,830)	254,236(229,364)	3
largebio_small	39,716(15,317)	74,099(68,477)	6,353(1,922)	186,817(187,310)	189,206(190,585)	2

Table 2.27: Measures related to problem size for Aroma in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	1,981(0)	249(0)	0.81(0)	0.35(0)	0	2(0)
conference	24(36)	4.52(4.34)	0.09(0.14)	0.01(0)	0.29(1.31)	0.29(1.31)
largebio_big	248,316(222,830)	2,911(2,222)	31(17)	115(146)	35(58)	109(106)
largebio_small	186,817(187,310)	1,244(296)	67(86)	313(422)	0	31(35)

Table 2.28: Measures related to solution size for Aroma in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
conference	110(31)	121(44)	15(10)	0.43(1.08)	0.43(1.08)	21
largebio_big	3,720(0)	6,551(0)	3,618(0)	6,197(0)	6,225(0)	1

Table 2.29: Measures related to problem size for Autom in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
conference	0.43(1.08)	0.29(0.78)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	6,197(0)	488(0)	53(0)	1.07(0)	37(0)	37(0)

Table 2.30: Measures related to solution size for Autom in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,424(0)	47,155(0)	47,441(0)	1
conference	112(31)	118(42)	47(13)	30(57)	30(57)	20

Table 2.31: Measures related to problem size for CIDER-CL in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	47,155(0)	817(0)	2.11(0)	3.95(0)	0	3(0)
conference	30(57)	3.9(3.06)	0.13(0.33)	0	0.55(1.7)	0.55(1.7)

Table 2.32: Measures related to solution size for CIDER-CL in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,603(0)	2,409(0)	2,425(0)	1
conference	110(31)	121(44)	22(6.73)	2.29(4.19)	2.33(4.19)	21
library	6,575(0)	8,376(0)	6,570(0)	285,361(0)	290,785(0)	1

Table 2.33: Measures related to problem size for Codi in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	2,409(0)	193(0)	0.63(0)	0.38(0)	0	2(0)
conference	2.29(4.19)	1.19(1.33)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
library	285,361(0)	1,968(0)	8.24(0)	54(0)	0	2(0)

Table 2.34: Measures related to solution size for Codi in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,077(0)	3,941(0)	3,979(0)	1
largebio_big	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	3
largebio_small	67,317(49,018)	66,029(50,398)	20,916(13,073)	287,030(240,330)	302,802(253,127)	3

Table 2.35: Measures related to problem size for GommaBK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	3,941(0)	420(0)	0.69(0)	0.49(0)	0	6(0)
largebio_big	135,638(128,895)	3,611(2,288)	25(13)	76(102)	101(90)	307(273)
largebio_small	287,030(240,330)	4,739(3,099)	113(57)	306(258)	35(39)	1,899(2,299)

Table 2.36: Measures related to solution size for GommaBK in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	3
largebio_small	93,534(25,101)	85,449(32,104)	21,163(13,240)	339,468(217,729)	354,542(228,438)	3

Table 2.37: Measures related to problem size for GommaSBK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
largebio_big	135,638(128,895)	3,621(2,293)	24(11)	77(102)	101(90)	312(270)
largebio_small	339,468(217,729)	4,733(2,959)	53(39)	349(245)	7.67(10)	1,894(2,406)

Table 2.38: Measures related to solution size for GommaSBK in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,717(312)	3,454(422)	3,474(437)	3
conference	110(31)	121(44)	16(6.99)	0.14(0.36)	0.14(0.36)	21
largebio_big	21,693(23,022)	14,674(7,880)	11,232(7,708)	75,020(91,435)	78,498(96,431)	6
largebio_small	80,426(37,674)	75,739(39,260)	13,884(8,788)	121,309(88,700)	124,717(93,074)	6
library	6,575(0)	8,376(0)	10,126(0)	19,061,985(0)	19,155,578(0)	1

Table 2.39: Measures related to problem size for Gomma in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	3,454(422)	311(94)	0.65(0.02)	0.43(0.03)	0	3.33(2.31)
conference	0.14(0.36)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	75,020(91,435)	2,254(1,977)	21(9.54)	53(75)	37(51)	154(138)
largebio_small	121,309(88,700)	2,622(2,080)	75(50)	199(168)	26(57)	120(91)
library	19,061,985(0)	5,887(0)	165(0)	6,656(0)	0	123(0)

Table 2.40: Measures related to solution size for Gomma in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,960(0)	1,978(0)	2,056(0)	2
conference	110(31)	121(43)	20(7.37)	0.43(0.97)	0.43(0.97)	42
largebio_big	6,951(3,730)	9,991(3,972)	7,360(1,453)	37,745(13,274)	38,267(13,720)	4
library	6,575(0)	8,376(0)	12,032(0)	26,673,406(0)	26,782,359(0)	2

Table 2.41: Measures related to problem size for Hertuda in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	1,978(0)	1,092(0)	0.61(0.01)	12(0.14)	0	0
conference	0.43(0.97)	0.33(0.72)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	37,745(13,274)	3,320(249)	15(2.19)	44(38)	51(58)	73(40)
library	26,673,406(0)	7,650(0)	248(0.59)	12,155(430)	0	116(0)

Table 2.42: Measures related to solution size for Hertuda in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,980(0)	619(0)	627(0)	2
conference	110(31)	121(43)	21(8.37)	0.43(0.97)	0.43(0.97)	42
largebio_big	6,951(3,730)	9,991(3,972)	4,419(163)	7,281(1,396)	7,367(1,312)	4
library	6,575(0)	8,376(0)	5,260(0)	93,701(0)	95,671(0)	2

Table 2.43: Measures related to problem size for HotMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	619(0)	135(0)	0.59(0.02)	0.21(0)	0	0
conference	0.43(0.97)	0.33(0.72)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	7,281(1,396)	452(51)	14(3.17)	3.04(1.84)	55(64)	56(64)
library	93,701(0)	1,287(0.71)	3.79(0.04)	20(1.78)	0	7(0)

Table 2.44: Measures related to solution size for HotMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,692(0)	396(0)	404(0)	1
conference	110(31)	121(44)	18(7.26)	0.33(0.91)	0.33(0.91)	21
largebio_big	21,693(25,739)	14,674(8,811)	7,605(7,990)	40,568(62,906)	41,750(64,929)	3
largebio_small	93,534(25,101)	85,449(32,104)	8,224(8,200)	70,382(68,248)	71,704(70,323)	3
library	6,575(0)	8,376(0)	378(0)	1,236(0)	1,325(0)	1

Table 2.45: Measures related to problem size for IAMA in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	396(0)	103(0)	0.58(0)	0.19(0)	0	0
conference	0.33(0.91)	0.19(0.51)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	40,568(62,906)	1,154(1,446)	16(4.87)	26(42)	13(21)	95(134)
largebio_small	70,382(68,248)	1,339(1,500)	45(30)	137(105)	0	72(122)
library	1,236(0)	47(0)	1.09(0)	0.72(0)	0	11(0)

Table 2.46: Measures related to solution size for IAMA in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	14,949(10,959)	270,028(396,794)	279,099(411,340)	3
largebio_small	67,317(49,018)	66,029(50,398)	14,724(10,597)	254,161(291,205)	260,649(300,093)	3

Table 2.47: Measures related to problem size for LogMap2Noe in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
largebio_big	270,028(396,794)	4,249(3,806)	33(31)	267(442)	154(180)	409(588)
largebio_small	254,161(291,205)	3,583(2,987)	121(66)	337(376)	39(60)	186(213)

Table 2.48: Measures related to solution size for LogMap2Noe in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,107(0)	5,771(0)	5,861(0)	1
largebio_big	21,693(25,739)	14,674(8,811)	15,792(11,738)	395,781(589,758)	409,235(611,467)	3
largebio_small	93,534(25,101)	85,449(32,104)	15,170(9,169)	437,916(288,984)	447,274(300,722)	3

Table 2.49: Measures related to problem size for LogMapBio in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	5,771(0)	547(0)	0.7(0)	0.63(0)	0	9(0)
largebio_big	395,781(589,758)	5,014(4,294)	37(37)	467(784)	197(248)	545(757)
largebio_small	437,916(288,984)	4,155(2,462)	63(57)	457(397)	2(3.46)	289(261)

Table 2.50: Measures related to solution size for LogMapBio in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	15,299(11,519)	320,091(479,286)	330,268(495,804)	3
largebio_small	93,534(25,101)	85,449(32,104)	14,009(9,664)	307,501(250,183)	313,459(257,919)	3

Table 2.51: Measures related to problem size for LogMapBK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	$\mathsf{diff}^{\approx}$
largebio_big	320,091(479,286)	4,514(4,134)	33(31)	412(690)	171(204)	477(671)
largebio_small	307,501(250,183)	3,553(2,842)	53(46)	353(339)	1(1.73)	165(268)

Table 2.52: Measures related to solution size for LogMapBK in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,235(0)	0	2(0)	1
conference	110(31)	121(44)	20(7.66)	0.24(0.89)	0.24(0.89)	21
largebio_big	21,693(25,739)	14,674(8,811)	9,472(6,744)	601(944)	914(1,268)	3
largebio_small	93,534(25,101)	85,449(32,104)	9,218(6,134)	3,289(5,638)	3,674(6,257)	3
library	6,575(0)	8,376(0)	2,925(0)	0	86(0)	1

Table 2.53: Measures related to problem size for LogMapC in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	0	0	0.57(0)	0.2(0)	0	2(0)
conference	0.24(0.89)	0.1(0.44)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)
largebio_big	601(944)	61(105)	14(2.04)	9.27(13)	48(55)	321(245)
largebio_small	3,289(5,638)	158(255)	33(22)	70(46)	1.33(2.31)	105(170)
library	0	0	1.21(0)	1.19(0)	0	86(0)

Table 2.54: Measures related to solution size for LogMapC in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,304(1.15)	2,984(3.46)	2,997(3.46)	3
conference	110(31)	121(43)	20(7.79)	0.57(1.01)	0.57(1.01)	63
largebio_big	21,693(22,291)	14,674(7,630)	10,056(8,923)	101,460(138,569)	105,338(144,264)	9
largebio_small	84,795(32,978)	78,976(35,279)	12,040(10,338)	131,297(118,953)	134,761(123,824)	9
library	6,575(0)	8,376(0)	8,192(25)	9,124,527(82,467)	9,197,059(82,930)	3

Table 2.55: Measures related to problem size for LogMapLt in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	2,984(3.46)	227(1.15)	0.63(0.02)	0.38(0.02)	0	2(0)
conference	0.57(1.01)	0.52(0.86)	0.04(0.05)	0	0.05(0.21)	0.05(0.21)
largebio_big	101,460(138,569)	2,355(2,589)	21(11)	76(110)	34(51)	143(123)
largebio_small	131,297(118,953)	2,756(2,422)	74(50)	189(146)	17(36)	96(108)
library	9,124,527(82,467)	4,292(49)	76(1.19)	3,151(567)	0	101(6.93)

Table 2.56: Measures related to solution size for LogMapLt in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,802(5.2)	4,024(115)	4,060(119)	3
conference	110(31)	121(43)	21(8.64)	1.71(1.97)	1.71(1.97)	63
largebio_big	21,693(22,291)	14,674(7,630)	15,046(9,818)	310,975(410,621)	321,205(425,060)	9
largebio_small	84,795(32,978)	78,976(35,279)	13,859(8,228)	248,954(189,568)	254,780(195,939)	9
library	6,575(0)	8,376(0)	5,835(276)	178,311(31,385)	183,506(31,861)	4

Table 2.57: Measures related to problem size for LogMap in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	4,024(115)	375(3.46)	0.69(0.02)	0.47(0.03)	0	2(0)
conference	1.71(1.97)	1.27(1.61)	0.05(0.06)	0	0.05(0.21)	0.05(0.21)
largebio_big	310,975(410,621)	4,358(3,511)	35(30)	375(552)	165(171)	462(572)
largebio_small	248,954(189,568)	3,363(2,356)	69(45)	299(249)	14(35)	154(191)
library	178,311(31,385)	2,265(140)	5.53(0.38)	32(3.02)	0	92(4.27)

Table 2.58: Measures related to solution size for LogMap in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,959(1,551)	38,363(29,027)	38,535(29,133)	3
conference	110(31)	121(43)	116(52)	63(80)	64(80)	63
largebio_big	5,335(3,231)	8,271(3,440)	9,244(4,707)	185,844(334,586)	188,388(339,418)	4
library	6,575(0)	8,376(0)	8,922(0)	10,298,959(0)	10,388,940(0)	1

Table 2.59: Measures related to problem size for MaasMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	38,363(29,027)	1,013(697)	1.78(0.91)	2.52(1.75)	0	0.67(1.15)
conference	63(80)	14(9.8)	1.46(5.59)	0	1.35(5.18)	1.35(5.18)
largebio_big	185,844(334,586)	1,809(2,272)	29(30)	56(109)	27(53)	50(58)
library	10,298,959(0)	3,624(0)	86(0)	1,538(0)	0	6(0)

Table 2.60: Measures related to solution size for MaasMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,512(122)	1,950(572)	1,964(569)	2
conference	110(31)	121(43)	24(10)	4.81(12)	4.81(12)	42
largebio_big	21,693(25,739)	14,674(8,811)	9,699(8,475)	166,075(243,308)	170,587(250,527)	3
largebio_small	28,885(0)	25,678(0)	5,168(0)	7,323(0)	7,431(0)	1
library	6,575(0)	8,376(0)	2,208(0)	125,070(0)	128,387(0)	1

Table 2.61: Measures related to problem size for MapSSS in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$
anatomy	1,950(572)	232(29)	0.64(0.01)	0.32(0.07)	0	2(0)
conference	4.81(12)	1.5(2.55)	0.04(0.05)	0	0.07(0.34)	0.07(0.34)
largebio_big	166,075(243,308)	1,794(1,864)	26(19)	100(157)	12(21)	42(17)
largebio_small	7,323(0)	586(0)	159(0)	7.72(0)	246(0)	259(0)
library	125,070(0)	445(0)	3.95(0)	19(0)	0	0

Table 2.62: Measures related to solution size for MapSSS in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,206(0)	923(0)	936(0)	1
conference	110(31)	121(43)	21(9.56)	2.52(7.98)	2.52(7.98)	42
largebio_big	6,951(3,730)	9,991(3,972)	6,600(3,499)	39,797(52,680)	40,336(53,621)	4
library	6,575(0)	8,376(0)	7,794(0)	427,728(0)	433,421(0)	1

Table 2.63: Measures related to problem size for ODGOMS in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$
anatomy	923(0)	140(0)	0.62(0)	0.22(0)	0	2(0)
conference	2.52(7.98)	0.64(1.25)	0.04(0.05)	0	0.1(0.37)	0.1(0.37)
largebio_big	39,797(52,680)	1,044(816)	16(2.6)	12(16)	51(58)	61(52)
library	427,728(0)	3,548(0)	7.92(0)	103(0)	0	62(0)

Table 2.64: Measures related to solution size for ODGOMS in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
conference	110(31)	121(44)	17(6.78)	0.29(0.9)	0.29(0.9)	21
largebio_big	21,693(25,739)	14,674(8,811)	6,668(6,559)	26,172(34,065)	26,906(35,270)	3
largebio_small	79,042(0)	66,914(0)	2,806(0)	43,387(0)	43,392(0)	1

Table 2.65: Measures related to problem size for OMReasoner in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	$\mathsf{diff}^{\approx}$
conference	0.29(0.9)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	26,172(34,065)	1,127(964)	14(2.62)	27(28)	12(21)	20(19)
largebio_small	43,387(0)	222(0)	20(0)	30(0)	0	0

Table 2.66: Measures related to solution size for OMReasoner in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,076(0)	8,304(0)	8,456(0)	1
conference	110(31)	121(44)	31(11)	13(23)	13(23)	21
library	6,575(0)	8,376(0)	1,380(0)	89,379(0)	91,098(0)	1

Table 2.67: Measures related to problem size for Optima in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	$\#$disj	$\lvert\mathcal{R}^{\approx}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	$\mathsf{diff}^{\approx}$
anatomy	8,304(0)	371(0)	0.72(0)	0.62(0)	0	5(0)
conference	13(23)	3.48(2.94)	0.07(0.12)	0	0.05(0.22)	0.05(0.22)
library	89,379(0)	469(0)	3.63(0)	13(0)	0	0

Table 2.68: Measures related to solution size for Optima in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,891(0)	494(0)	504(0)	1
conference	110(31)	121(44)	17(6.79)	0.33(0.91)	0.33(0.91)	21
largebio_big	3,720(0)	6,551(0)	1,456(0)	830(0)	830(0)	1
library	6,575(0)	8,376(0)	342(0)	495(0)	510(0)	1

Table 2.69: Measures related to problem size for RSDLWB in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	494(0)	115(0)	0.59(0)	0.2(0)	0	2(0)
conference	0.33(0.91)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	830(0)	115(0)	16(0)	0.59(0)	0	0
library	495(0)	31(0)	1.09(0)	0.65(0)	0	0

Table 2.70: Measures related to solution size for RSDLWB in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,952(0)	2,435(0)	2,484(0)	1
conference	110(31)	121(44)	13(5.35)	0.1(0.3)	0.1(0.3)	21
largebio_big	21,693(25,739)	14,674(8,811)	13,696(9,303)	137,511(149,148)	143,138(157,864)	3
largebio_small	67,317(49,018)	66,029(50,398)	14,658(10,230)	472,031(396,955)	481,518(405,818)	3
library	6,575(0)	8,376(0)	6,482(0)	1,718,682(0)	1,743,115(0)	1

Table 2.71: Measures related to problem size for ServOMapL in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	2,435(0)	162(0)	0.63(0)	0.23(0)	0	2(0)
conference	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	137,511(149,148)	2,804(2,057)	25(16)	96(146)	45(57)	207(263)
largebio_small	472,031(396,955)	3,246(2,468)	146(32)	590(524)	67(60)	205(232)
library	1,718,682(0)	2,505(0)	21(0)	339(0)	0	66(0)

Table 2.72: Measures related to solution size for ServOMapL in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,950(4.95)	747(69)	759(69)	2
conference	110(31)	121(43)	20(7.88)	5.88(12)	5.9(12)	42
largebio_big	21,693(23,022)	14,674(7,880)	13,398(8,550)	163,725(151,703)	168,588(157,448)	6
largebio_small	80,426(37,674)	75,739(39,260)	14,768(9,385)	590,365(460,575)	598,986(465,565)	6
library	6,575(0)	8,376(0)	6,379(1,761)	2,030,701(2,797,469)	2,049,668(2,822,695)	2

Table 2.73: Measures related to problem size for ServOMap in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	747(69)	156(30)	0.59(0)	0.21(0)	0	1.5(0.71)
conference	5.88(12)	1.43(2.26)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)
largebio_big	163,725(151,703)	3,838(3,020)	25(12)	144(194)	36(51)	166(199)
largebio_small	590,365(460,575)	3,748(2,957)	140(70)	842(657)	20(43)	138(167)
library	2,030,701(2,797,469)	2,400(1,642)	21(25)	657(913)	0	81(115)

Table 2.74: Measures related to solution size for ServOMap in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	8,883(8,605)	114,132(185,194)	117,527(190,779)	3
largebio_small	93,534(25,101)	85,449(32,104)	9,779(8,466)	91,762(80,985)	93,900(84,419)	3

Table 2.75: Measures related to problem size for Sphere in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
largebio_big	114,132(185,194)	1,536(1,897)	22(15)	66(110)	36(57)	298(310)
largebio_small	91,762(80,985)	1,595(1,645)	41(29)	160(134)	0.67(1.15)	159(207)

Table 2.76: Measures related to solution size for Sphere in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,634(0)	2,493(0)	2,511(0)	1
conference	110(31)	121(44)	21(7.55)	2.29(4)	2.29(4)	21
largebio_big	3,720(0)	6,551(0)	3,880(0)	8,312(0)	8,321(0)	1
library	6,575(0)	8,376(0)	1,624(0)	7,205(0)	7,334(0)	1

Table 2.77: Measures related to problem size for StringsAuto in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	2,493(0)	308(0)	0.62(0)	0.39(0)	0	2(0)
conference	2.29(4)	1.1(1.48)	0.07(0.16)	0	0.19(0.6)	0.19(0.6)
largebio_big	8,312(0)	491(0)	18(0)	1.37(0)	0	0
library	7,205(0)	246(0)	1.67(0)	1.89(0)	0	1(0)

Table 2.78: Measures related to solution size for StringsAuto in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,203(468)	4,082(4,452)	4,122(4,492)	2
conference	110(31)	121(43)	17(6.63)	0.33(0.82)	0.33(0.82)	42
library	6,575(0)	8,376(0)	5,870(0)	125,803(0)	128,682(0)	1

Table 2.79: Measures related to problem size for WeSeE in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	4,082(4,452)	224(3.54)	0.68(0.09)	0.6(0.49)	0	1(1.41)
conference	0.33(0.82)	0.26(0.63)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)
library	125,803(0)	1,613(0)	5.1(0)	29(0)	0	9(0)

Table 2.80: Measures related to solution size for WeSeE in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,217(227)	850(407)	876(429)	2
conference	110(31)	121(43)	20(7.55)	0.38(0.96)	0.38(0.96)	42
largebio_big	3,720(0)	6,551(0)	6,356(0)	15,581(0)	15,794(0)	1

Table 2.81: Measures related to problem size for WMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	850(407)	294(215)	0.6(0.02)	0.28(0.1)	0	3(1.41)
conference	0.38(0.96)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	15,581(0)	1,342(0)	65(0)	2.01(0)	109(0)	120(0)

Table 2.82: Measures related to solution size for WMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,611(0)	15,411(0)	15,669(0)	1
conference	110(31)	121(43)	29(15)	51(276)	52(277)	42
largebio_big	6,951(4,569)	9,991(4,864)	3,514(198)	21,100(2,077)	21,231(2,158)	2

Table 2.83: Measures related to problem size for XMapGen in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	15,411(0)	508(0)	1.01(0)	0.55(0)	0	6(0)
conference	51(276)	3.81(8.11)	0.05(0.07)	0	0.05(0.22)	0.21(0.47)
largebio_big	21,100(2,077)	696(175)	14(4.18)	3.93(3.11)	76(107)	77(105)

Table 2.84: Measures related to solution size for XMapGen in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,387(0)	6,614(0)	6,799(0)	1
conference	110(31)	121(43)	18(7.74)	2.45(8.47)	2.6(8.51)	42
largebio_big	6,951(4,569)	9,991(4,864)	3,145(24)	11,635(2,056)	11,716(1,986)	2
library	6,575(0)	8,376(0)	2,870(0)	108,042(0)	111,957(0)	1

Table 2.85: Measures related to problem size for XMapSig in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	6,614(0)	425(0)	0.74(0)	2.08(0)	0	8(0)
conference	2.45(8.47)	0.67(1.49)	0.04(0.05)	0	0.05(0.22)	0.07(0.26)
largebio_big	11,635(2,056)	571(112)	14(3.44)	2.66(1.81)	76(107)	77(105)
library	108,042(0)	813(0)	3.79(0)	20(0)	0	28(0)

Table 2.86: Measures related to solution size for XMapSig in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,740(0)	1,298(0)	1,311(0)	1
conference	110(31)	121(44)	16(5.52)	0.1(0.3)	0.1(0.3)	21
largebio_big	21,693(25,739)	14,674(8,811)	16,213(11,624)	252,390(286,300)	261,393(299,637)	3
largebio_small	93,534(25,101)	85,449(32,104)	16,015(10,080)	343,203(262,277)	352,327(272,970)	3
library	6,575(0)	8,376(0)	11,948(0)	24,398,269(0)	24,507,254(0)	1

Table 2.87: Measures related to problem size for XMap in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	1,298(0)	248(0)	0.59(0)	0.25(0)	0	2(0)
conference	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)
largebio_big	252,390(286,300)	3,529(2,945)	35(27)	140(204)	39(55)	197(194)
largebio_small	343,203(262,277)	3,317(2,495)	84(73)	418(369)	3.33(5.77)	62(86)
library	24,398,269(0)	7,466(0)	231(0)	11,954(0)	0	127(0)

Table 2.88: Measures related to solution size for XMap in *OAEI* 2012-2014 dataset, grouped by track.

	Problem Size			Original Violations		Alignments
	I	II	III	IV	V	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,773(24)	1,123(7.78)	1,135(7.78)	2
conference	110(31)	121(43)	25(10)	2.62(5.83)	2.71(6.03)	42
largebio_big	21,693(23,022)	14,674(7,880)	13,955(8,287)	119,698(109,862)	124,698(116,612)	6
largebio_small	80,426(37,674)	75,739(39,260)	14,992(9,099)	357,923(255,685)	364,813(257,489)	6
library	6,575(0)	8,376(0)	7,746(274)	2,449,208(862,134)	2,477,373(870,637)	2

Table 2.89: Measures related to problem size for YAM++ in *OAEI* 2012-2014 dataset, grouped by track.

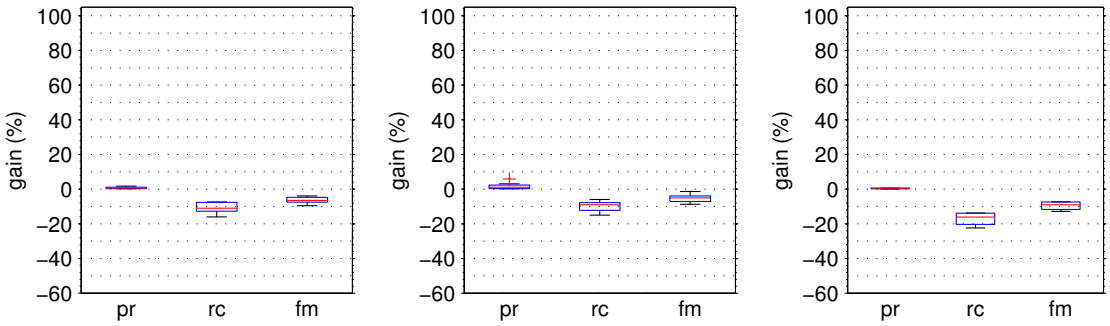
	Solution Size		Times		Remaining Violations	
	XII	XIII	XIV	XV	XVI	XVII
	#disj	$\lvert\mathcal{R}^{\approx}\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$
anatomy	1,123(7.78)	266(4.24)	0.61(0.04)	0.25(0)	0	2(0)
conference	2.62(5.83)	1.24(2.07)	0.06(0.08)	0	0.05(0.22)	0.05(0.22)
largebio_big	119,698(109,862)	3,156(2,327)	24(12)	86(115)	37(51)	134(143)
largebio_small	357,923(255,685)	3,471(2,358)	101(56)	426(309)	25(45)	133(116)
library	2,449,208(862,134)	3,608(197)	29(9.35)	766(367)	0	90(79)

Table 2.90: Measures related to solution size for YAM++ in *OAEI* 2012-2014 dataset, grouped by track.

2.2 Repair Effects on Alignment Quality (Extended)

This section presents an evaluation of the effect of the proposed repair process on precision, recall and f-measure w.r.t. a reference alignment. The results of this section, consisting in Figures **??**–**??**, are grouped by matcher.

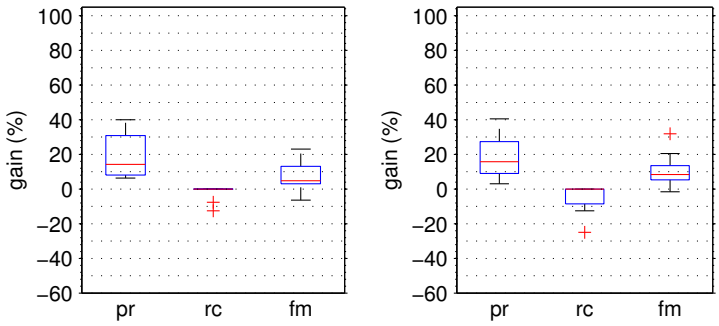
This additional analysis confirms the hypothesis that the impact of subsumption conservativity violations repair on quality measures is limited, with an average increase for precision, and an average descrease for recall and f-measure.



(a) AML-BKR matcher. (b) AML-BK matcher. (c) AML-BKUR matcher.

(d) AML-BKU matcher. (e) AML-R matcher. (f) AML matcher.

Figure 2.1: Repair effect for AML matcher family, subsumption repair.



(a) AOTL matcher. (b) AOT matcher.

Figure 2.2: Repair effect for AOT matcher family, subsumption repair.

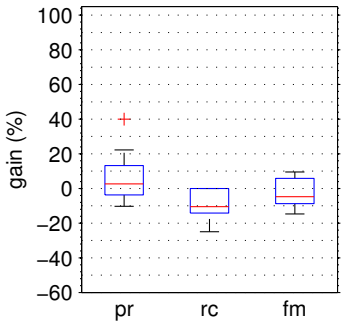


Figure 2.3: Repairing effect for Aroma matcher.

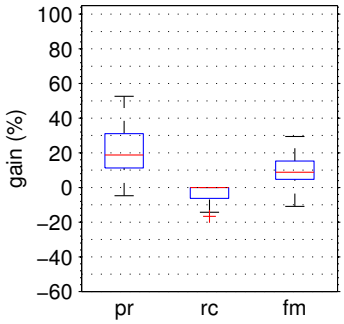


Figure 2.4: Repairing effect for Ase matcher.

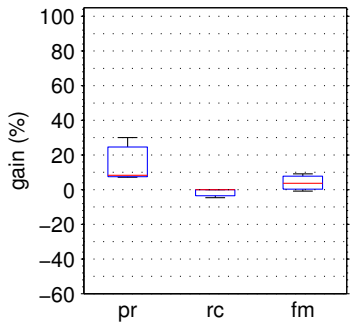


Figure 2.5: Repairing effect for Autom matcher.

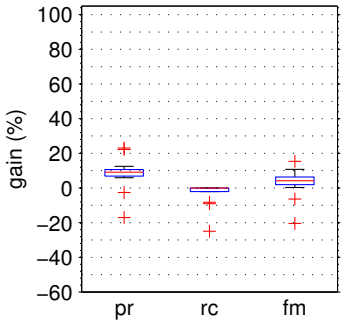


Figure 2.6: Repairing effect for CIDER-CL matcher.

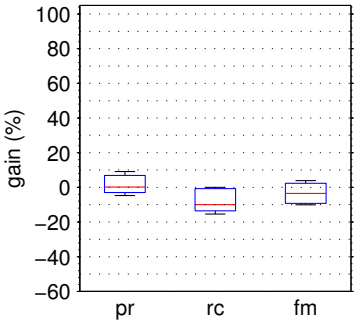


Figure 2.7: Repairing effect for Codi matcher.

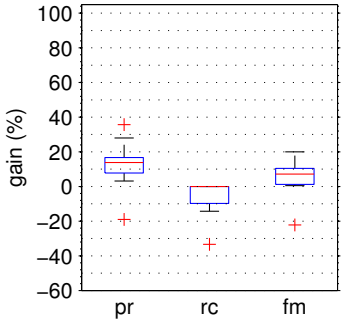
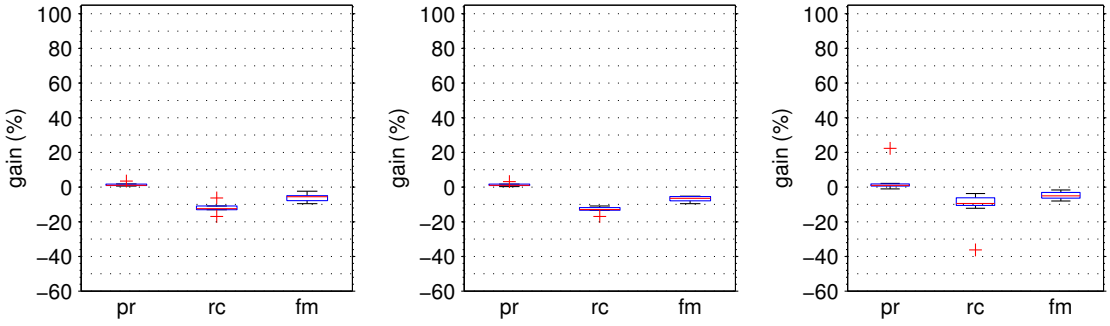


Figure 2.8: Repairing effect for Cro-Matcher matcher.



(a) GommaBK matcher. (b) GommaSBK matcher. (c) Gomma matcher.

Figure 2.9: Repair effect for Gomma matcher family, subsumption repair.

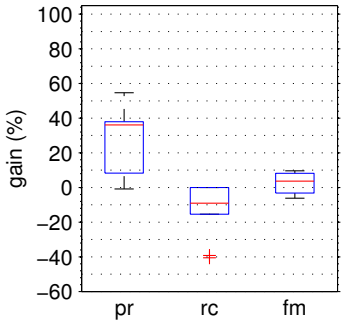


Figure 2.10: Repairing effect for Hertuda matcher.

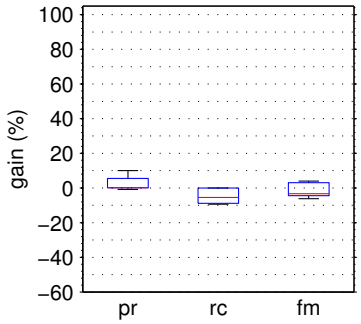


Figure 2.11: Repairing effect for HotMatch matcher.

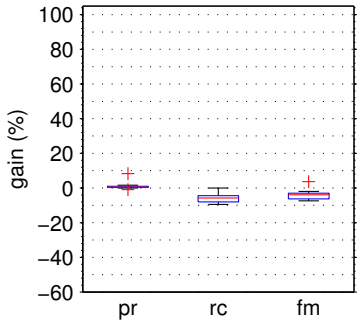
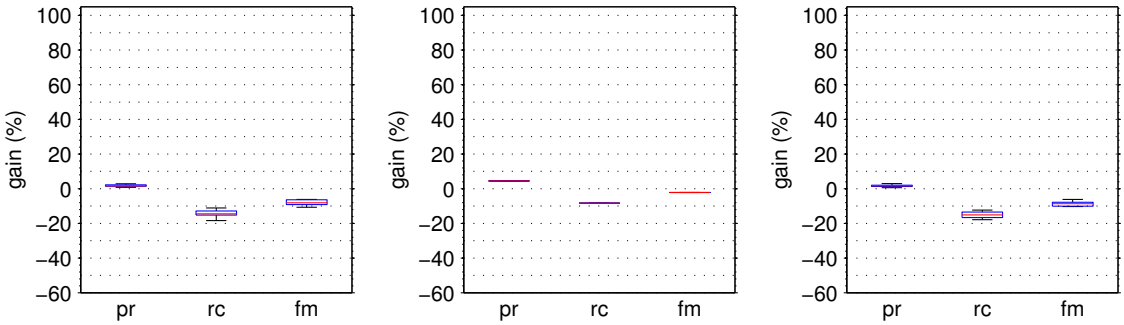
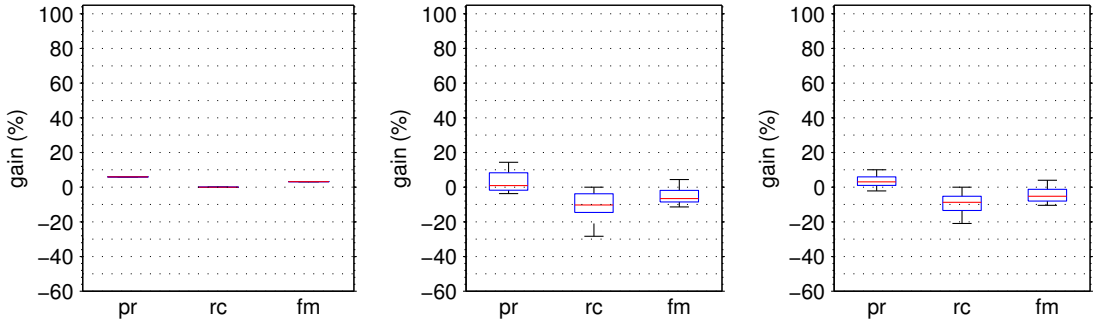


Figure 2.12: Repairing effect for IAMA matcher.



(a) LogMap2Noe matcher. (b) LogMapBio matcher. (c) LogMapBK matcher.



(d) LogMapC matcher. (e) LogMapLt matcher. (f) LogMap matcher.

Figure 2.13: Repair effect for LogMap matcher family, subsumption repair.

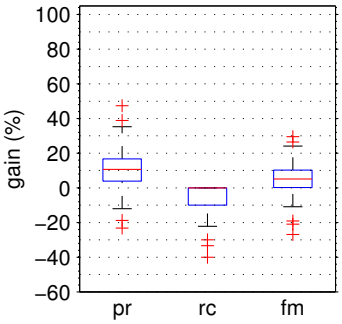


Figure 2.14: Repairing effect for MaasMatch matcher.

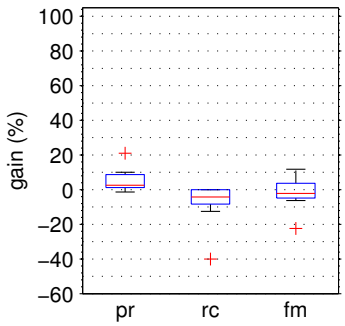


Figure 2.15: Repairing effect for MapSSS matcher.

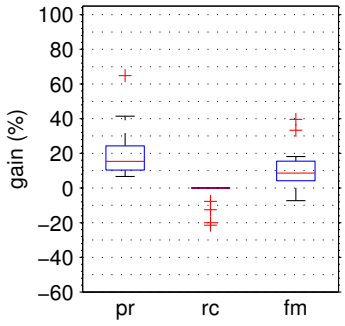


Figure 2.16: Repairing effect for Medley matcher.

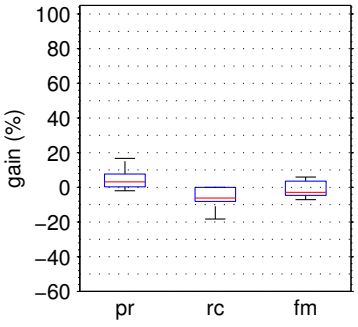


Figure 2.17: Repairing effect for ODGOMS matcher.

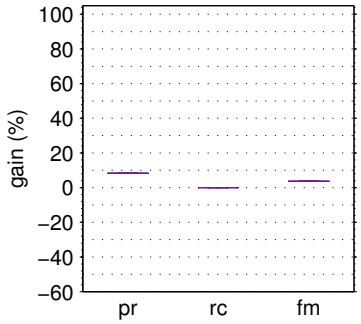


Figure 2.18: Repairing effect for OMReasoner matcher.

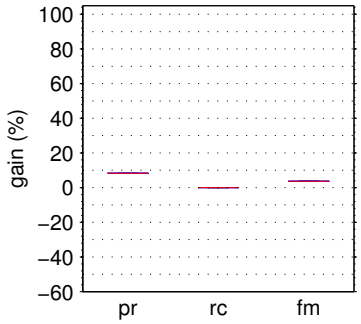


Figure 2.19: Repairing effect for ontoK2 matcher.

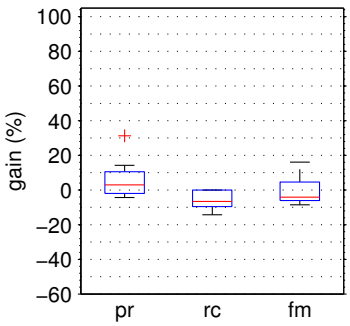


Figure 2.20: Repairing effect for Optima matcher.

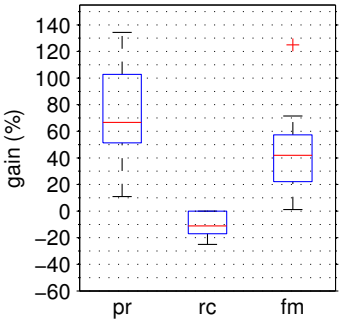


Figure 2.21: Repairing effect for RIMOM matcher.

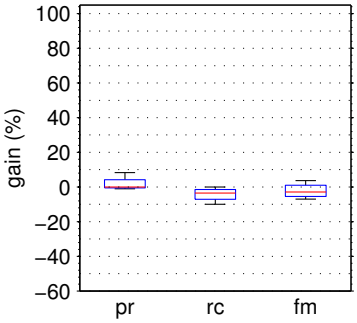
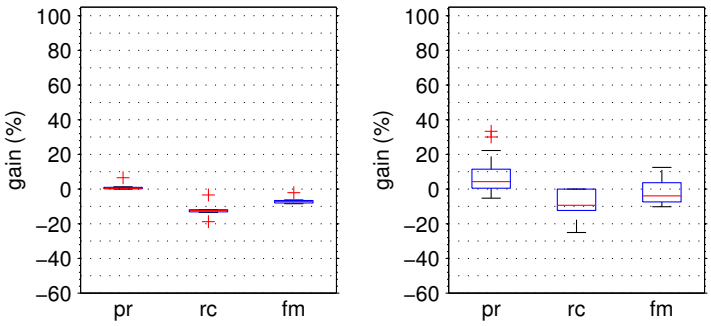


Figure 2.22: Repairing effect for RSDLWB matcher.



(a) ServOMapL matcher. (b) ServOMap matcher.

Figure 2.23: Repair effect for ServOMap matcher family, subsumption repair.

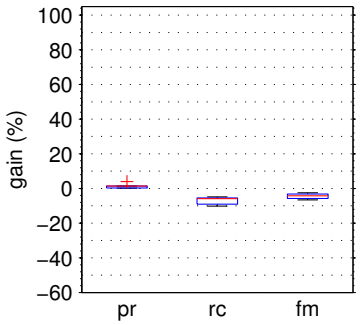


Figure 2.24: Repairing effect for Sphere matcher.

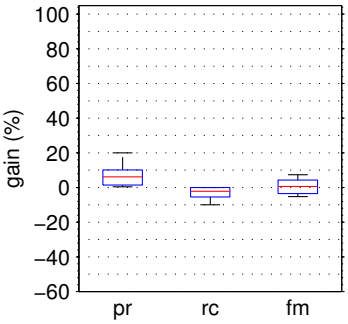


Figure 2.25: Repairing effect for StringsAuto matcher.

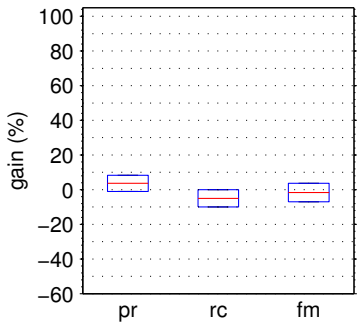


Figure 2.26: Repairing effect for Synthesis matcher.

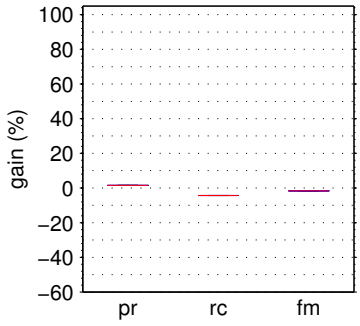


Figure 2.27: Repairing effect for Toast matcher.

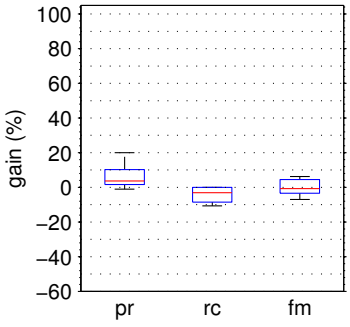


Figure 2.28: Repairing effect for WeSeE matcher.

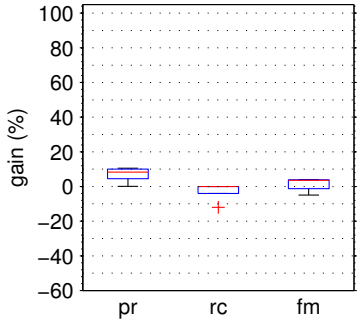
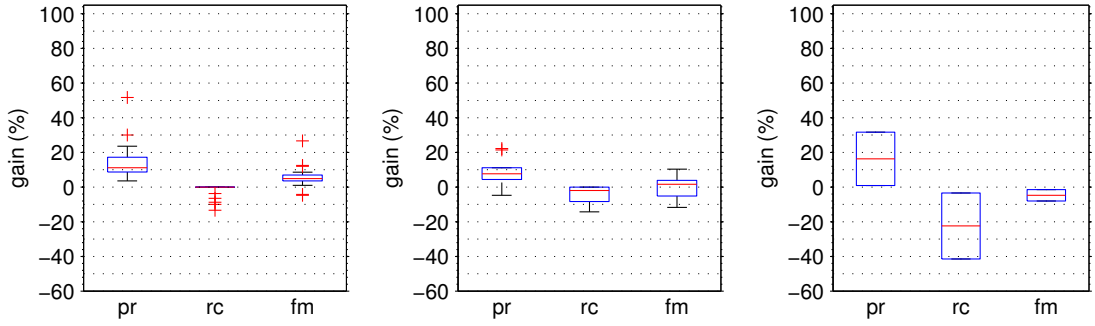


Figure 2.29: Repairing effect for WMatch matcher.



(a) XMapGen matcher. (b) XMapSig matcher. (c) XMap matcher.

Figure 2.30: Repair effect for XMap matcher family, subsumption repair.

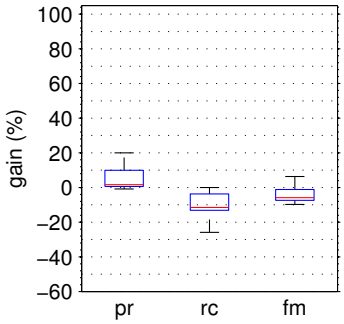


Figure 2.31: Repairing effect for YAM++ matcher.

Chapter 3

OAEI Dataset Extended Analysis for Combined Approach

3.1 Analysis of Ontology Matchers Alignments (Extended)

In this section we present additional experimental results. Specifically, Tables **??**–**??** show the data splitted by track and aggregated by matcher, while the opposite order holds for Tables **??**–**??**.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
aml	2,747(0)	3,306(0)	2,793(231)	2,918(2,556)	2,931(2,558)	3.5(4.95)	2
amlbk	2,747(0)	3,306(0)	2,954(0)	4,724(0)	4,737(0)	0	1
aot	2,747(0)	3,306(0)	5,400(0)	24,968(0)	25,284(0)	2,063(0)	1
aotl	2,747(0)	3,306(0)	336(0)	1,480(0)	1,514(0)	48(0)	1
aroma	2,747(0)	3,306(0)	2,412(0)	1,981(0)	2,007(0)	6(0)	1
cidercl	2,747(0)	3,306(0)	3,424(0)	47,155(0)	47,441(0)	98(0)	1
codi	2,747(0)	3,306(0)	2,603(0)	2,409(0)	2,425(0)	2(0)	1
gomma	2,747(0)	3,306(0)	2,717(312)	3,454(422)	3,474(437)	65(30)	3
gommabk	2,747(0)	3,306(0)	3,077(0)	3,941(0)	3,979(0)	100(0)	1
hertuda	2,747(0)	3,306(0)	2,960(0)	1,978(0)	2,056(0)	576(0)	2
hotmatch	2,747(0)	3,306(0)	1,980(0)	619(0)	627(0)	0	2
iama	2,747(0)	3,306(0)	1,692(0)	396(0)	404(0)	0	1
logmap	2,747(0)	3,306(0)	2,802(5.2)	4,024(115)	4,060(119)	91(4.04)	3
logmapbio	2,747(0)	3,306(0)	3,107(0)	5,771(0)	5,861(0)	180(0)	1
logmapc	2,747(0)	3,306(0)	2,235(0)	0	2(0)	0	1
logmaplt	2,747(0)	3,306(0)	2,304(1.15)	2,984(3.46)	2,997(3.46)	47(0.58)	3
maasmatch	2,747(0)	3,306(0)	3,959(1,551)	38,363(29,027)	38,535(29,133)	96(99)	3
mapsss	2,747(0)	3,306(0)	2,512(122)	1,950(572)	1,964(569)	2(2.83)	2
odgoms	2,747(0)	3,306(0)	2,206(0)	923(0)	936(0)	0	1
optima	2,747(0)	3,306(0)	2,076(0)	8,304(0)	8,456(0)	177(0)	1
rsdlwb	2,747(0)	3,306(0)	1,891(0)	494(0)	504(0)	0	1
servomap	2,747(0)	3,306(0)	1,950(4.95)	747(69)	759(69)	13(18)	2
servomapl	2,747(0)	3,306(0)	1,952(0)	2,435(0)	2,484(0)	15(0)	1
stringsauto	2,747(0)	3,306(0)	2,634(0)	2,493(0)	2,511(0)	32(0)	1
toast	2,747(0)	3,306(0)	2,678(0)	2,597(0)	2,612(0)	4(0)	1
wesee	2,747(0)	3,306(0)	2,203(468)	4,082(4,452)	4,122(4,492)	5(4.24)	2
wmatch	2,747(0)	3,306(0)	2,217(227)	850(407)	876(429)	87(123)	2
xmap	2,747(0)	3,306(0)	2,740(0)	1,298(0)	1,311(0)	7(0)	1
xmapgen	2,747(0)	3,306(0)	2,611(0)	15,411(0)	15,669(0)	943(0)	1
xmapsig	2,747(0)	3,306(0)	2,387(0)	6,614(0)	6,799(0)	437(0)	1
yam++	2,747(0)	3,306(0)	2,773(24)	1,123(7.78)	1,135(7.78)	23(0)	2

Table 3.1: Measures related to problem size for *anatomy* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	$\#$**disj**	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	$\mathbf{t}_d$**(s)**	$\mathbf{t}_r$**(s)**	**basicViol**	**diff**$^{\approx}$	**eqViol**
aml	2,906(2,539)	264(39)	0.8(0.07)	0.69(0.24)	0	2(0)	0
amlbk	4,724(0)	303(0)	0.65(0)	0.64(0)	0	2(0)	0
aot	9,394(0)	2,073(0)	1.14(0)	2.23(0)	0	0	0
aotl	770(0)	79(0)	0.54(0)	0.24(0)	0	0	0
aroma	1,916(0)	250(0)	0.78(0)	0.49(0)	0	2(0)	0
cidercl	22,805(0)	778(0)	2.02(0)	1.99(0)	0	3(0)	0
codi	2,404(0)	197(0)	0.65(0)	0.43(0)	0	2(0)	0
gomma	2,637(363)	295(96)	0.64(0.01)	0.53(0.05)	0	2(0)	0
gommabk	3,056(0)	406(0)	0.63(0)	0.6(0)	0	2(0)	0
hertuda	1,080(0)	1,090(0)	0.63(0.02)	61(0.15)	0	2(0)	0
hotmatch	619(0)	135(0)	0.59(0.02)	0.26(0)	0	0	0
iama	396(0)	103(0)	0.59(0)	0.27(0)	0	0	0
logmap	3,019(6.35)	356(0)	0.68(0.02)	0.55(0.02)	0	2(0)	0
logmapbio	3,901(0)	546(0)	0.74(0)	0.71(0)	0	2(0)	0
logmapc	0	0	0.56(0)	0.25(0)	0	2(0)	0
logmaplt	2,175(2.31)	213(0)	0.63(0.03)	0.45(0.02)	0	2(0)	0
maasmatch	26,793(18,224)	1,007(694)	1.77(0.92)	1.83(0.99)	0	0.67(1.15)	0
mapsss	1,940(585)	227(35)	0.62(0.02)	0.37(0.06)	0	2(0)	0
odgoms	923(0)	140(0)	0.58(0)	0.31(0)	0	2(0)	0
optima	2,928(0)	335(0)	0.69(0)	3.42(0)	0	2(0)	0
rsdlwb	494(0)	115(0)	0.57(0)	0.25(0)	0	2(0)	0
servomap	721(105)	157(30)	0.62(0.01)	0.28(0.02)	0	1(1.41)	0
servomapl	836(0)	140(0)	0.58(0)	0.27(0)	0	2(0)	0
stringsauto	2,424(0)	305(0)	0.61(0)	0.43(0)	0	2(0)	0
toast	2,556(0)	309(0)	0.62(0)	0.43(0)	0	0	0
wesee	1,557(911)	218(1.41)	0.7(0.04)	0.34(0.02)	0	1(1.41)	0
wmatch	689(179)	285(203)	0.59(0.02)	27(38)	0	2(0)	0
xmap	1,215(0)	237(0)	0.61(0)	0.32(0)	0	2(0)	0
xmapgen	1,591(0)	451(0)	0.95(0)	1.37(0)	0	2(0)	0
xmapsig	1,121(0)	377(0)	0.75(0)	0.57(0)	0	2(0)	0
yam++	1,081(7.78)	264(8.49)	0.59(0.01)	0.35(0.02)	0	2(0)	0

Table 3.2: Measures related to problem size for *anatomy* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	$\#$disj	$\lvert\mathcal{R}^{\approx}{}_{\mathbf{2}}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
aml	2,918(2,556)	267(44)	0.83(0.05)	0.66(0.21)	0	2(0)	0
amlbk	4,724(0)	303(0)	0.66(0)	0.63(0)	0	2(0)	0
aot	24,968(0)	2,212(0)	1.18(0)	5.04(0)	0	0	0
aotl	1,480(0)	87(0)	0.54(0)	0.22(0)	0	0	0
aroma	1,981(0)	249(0)	0.81(0)	0.5(0)	0	2(0)	0
cidercl	47,155(0)	817(0)	2.11(0)	4.02(0)	0	3(0)	0
codi	2,409(0)	193(0)	0.63(0)	0.46(0)	0	2(0)	0
gomma	3,454(422)	312(96)	0.65(0.02)	0.51(0.05)	0	2(0)	0
gommabk	3,941(0)	423(0)	0.69(0)	0.58(0)	0	2(0)	0
hertuda	1,978(0)	1,092(0)	0.61(0.01)	12(0.14)	0	0	0
hotmatch	619(0)	135(0)	0.59(0.02)	0.28(0)	0	0	0
iama	396(0)	103(0)	0.58(0)	0.27(0)	0	0	0
logmap	4,024(115)	375(3.46)	0.69(0.02)	0.54(0.03)	0	2(0)	0
logmapbio	5,771(0)	551(0)	0.7(0)	0.74(0)	0	2(0)	0
logmapc	0	0	0.57(0)	0.25(0)	0	2(0)	0
logmaplt	2,984(3.46)	227(1.15)	0.63(0.02)	0.45(0.01)	0	2(0)	0
maasmatch	38,363(29,027)	1,013(697)	1.78(0.91)	2.59(1.75)	0	0.67(1.15)	0
mapsss	1,950(572)	232(29)	0.64(0.01)	0.4(0.07)	0	2(0)	0
odgoms	923(0)	140(0)	0.62(0)	0.3(0)	0	2(0)	0
optima	8,304(0)	372(0)	0.72(0)	0.7(0)	0	2(0)	0
rsdlwb	494(0)	115(0)	0.59(0)	0.27(0)	0	2(0)	0
servomap	747(69)	157(30)	0.59(0)	0.28(0.01)	0	1(1.41)	0
servomapl	2,435(0)	162(0)	0.63(0)	0.31(0)	0	2(0)	0
stringsauto	2,493(0)	308(0)	0.62(0)	0.47(0)	0	2(0)	0
toast	2,597(0)	311(0)	0.63(0)	0.39(0)	0	0	0
wesee	4,082(4,452)	224(3.54)	0.68(0.09)	0.67(0.49)	0	1(1.41)	0
wmatch	850(407)	295(217)	0.6(0.02)	0.36(0.1)	0	2(0)	0
xmap	1,298(0)	248(0)	0.59(0)	0.33(0)	0	2(0)	0
xmapgen	15,411(0)	510(0)	1.01(0)	0.64(0)	0	2(0)	0
xmapsig	6,614(0)	428(0)	0.74(0)	2.19(0)	0	2(0)	0
yam++	1,123(7.78)	266(4.24)	0.61(0.04)	0.33(0)	0	2(0)	0

Table 3.3: Measures related to problem size for *anatomy* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
aml	110(31)	121(43)	20(8.48)	1.55(3.4)	1.55(3.4)	0	42
amlbk	110(31)	121(44)	19(7.67)	1.24(2.84)	1.29(2.87)	0	21
aot	107(27)	123(44)	122(40)	106(230)	108(231)	8.45(14)	20
aotl	110(31)	121(44)	29(12)	65(246)	66(249)	2.95(8.81)	21
aroma	110(31)	121(44)	40(15)	24(36)	24(36)	0.38(0.8)	21
ase	107(27)	123(44)	47(27)	64(136)	66(137)	9.75(18)	20
autom	110(31)	121(44)	15(10)	0.43(1.08)	0.43(1.08)	0	21
cidercl	112(31)	118(42)	47(13)	30(57)	30(57)	0.2(0.62)	20
codi	110(31)	121(44)	22(6.73)	2.29(4.19)	2.33(4.19)	0	21
cromatcher	107(36)	121(46)	81(22)	26(38)	27(38)	0.27(1.03)	15
gomma	110(31)	121(44)	16(6.99)	0.14(0.36)	0.14(0.36)	0	21
hertuda	110(31)	121(43)	20(7.37)	0.43(0.97)	0.43(0.97)	0	42
hotmatch	110(31)	121(43)	21(8.37)	0.43(0.97)	0.43(0.97)	0	42
iama	110(31)	121(44)	18(7.26)	0.33(0.91)	0.33(0.91)	0	21
logmap	110(31)	121(43)	21(8.64)	1.71(1.97)	1.71(1.97)	0.05(0.21)	63
logmapc	110(31)	121(44)	20(7.66)	0.24(0.89)	0.24(0.89)	0	21
logmaplt	110(31)	121(43)	20(7.79)	0.57(1.01)	0.57(1.01)	0	63
maasmatch	110(31)	121(43)	116(52)	63(80)	64(80)	0.44(1.64)	63
mapsss	110(31)	121(43)	24(10)	4.81(12)	4.81(12)	0	42
medley	110(31)	121(44)	98(43)	92(185)	93(185)	3.62(6.99)	21
odgoms	110(31)	121(43)	21(9.56)	2.52(7.98)	2.52(7.98)	0	42
omreasoner	110(31)	121(44)	17(6.78)	0.29(0.9)	0.29(0.9)	0	21
ontok2	110(31)	121(44)	18(6.73)	0.29(0.9)	0.29(0.9)	0	21
optima	110(31)	121(44)	31(11)	13(23)	13(23)	0.14(0.36)	21
rimom	110(31)	121(44)	114(48)	134(105)	139(108)	32(31)	21
rsdlwb	110(31)	121(44)	17(6.79)	0.33(0.91)	0.33(0.91)	0	21
servomap	110(31)	121(43)	20(7.88)	5.88(12)	5.9(12)	0.43(1.17)	42
servomapl	110(31)	121(44)	13(5.35)	0.1(0.3)	0.1(0.3)	0	21
stringsauto	110(31)	121(44)	21(7.55)	2.29(4)	2.29(4)	0	21
synthesis	110(31)	121(44)	17(6.79)	0.33(0.91)	0.33(0.91)	0	21
wesee	110(31)	121(43)	17(6.63)	0.33(0.82)	0.33(0.82)	0	42
wmatch	110(31)	121(43)	20(7.55)	0.38(0.96)	0.38(0.96)	0	42
xmap	110(31)	121(44)	16(5.52)	0.1(0.3)	0.1(0.3)	0	21
xmapgen	110(31)	121(43)	29(15)	51(276)	52(277)	3.79(16)	42
xmapsig	110(31)	121(43)	18(7.74)	2.45(8.47)	2.6(8.51)	0.24(0.58)	42
yam++	110(31)	121(43)	25(10)	2.62(5.83)	2.71(6.03)	0	42

Table 3.4: Measures related to problem size for *conference* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
aml	1.55(3.4)	0.83(1.51)	0.06(0.06)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
amlbk	1.24(2.84)	0.71(1.55)	0.05(0.07)	0.01(0)	0.05(0.22)	0.05(0.22)	0
aot	53(104)	13(15)	0.29(0.7)	0.02(0.01)	0.4(1.19)	0.4(1.19)	0
aotl	14(28)	4.9(5.89)	0.35(1.37)	0.01(0.01)	0	0	0
aroma	23(35)	4.57(4.44)	0.09(0.15)	0.01(0.01)	0.29(1.31)	0.29(1.31)	0
ase	24(38)	8.15(8.97)	0.11(0.31)	0.01(0.01)	0.35(0.99)	0.35(0.99)	0
autom	0.43(1.08)	0.29(0.78)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
cidercl	30(57)	3.9(3.08)	0.13(0.33)	0.01(0)	0.55(1.7)	0.55(1.7)	0
codi	2.29(4.19)	1.19(1.33)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
cromatcher	26(39)	8.39(6.6)	0.15(0.36)	0.01(0)	0.13(0.52)	0.13(0.52)	0
gomma	0.14(0.36)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
hertuda	0.43(0.97)	0.33(0.72)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
hotmatch	0.43(0.97)	0.33(0.72)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
iama	0.33(0.91)	0.19(0.51)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
logmap	1.67(1.98)	1.27(1.61)	0.05(0.06)	0.01(0)	0.05(0.21)	0.05(0.21)	0
logmapc	0.24(0.89)	0.1(0.44)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
logmaplt	0.57(1.01)	0.52(0.86)	0.04(0.05)	0.01(0)	0.05(0.21)	0.05(0.21)	0
maasmatch	61(78)	14(10)	1.44(5.41)	0.01(0)	1.25(4.59)	1.25(4.59)	0
mapsss	4.81(12)	1.5(2.55)	0.04(0.05)	0.01(0)	0.07(0.34)	0.07(0.34)	0
medley	56(89)	14(16)	0.34(0.74)	0.01(0.01)	0.67(2.11)	0.67(2.11)	0
odgoms	2.52(7.98)	0.64(1.25)	0.04(0.05)	0.01(0)	0.1(0.37)	0.1(0.37)	0
omreasoner	0.29(0.9)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
ontok2	0.29(0.9)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
optima	12(23)	3.33(2.85)	0.07(0.12)	0.01(0)	0.05(0.22)	0.05(0.22)	0
rimom	60(65)	49(39)	0.85(2.98)	11(23)	0.05(0.22)	0.05(0.22)	0
rsdlwb	0.33(0.91)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
servomap	4.79(10)	1.45(2.36)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
servomapl	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
stringsauto	2.29(4)	1.1(1.48)	0.07(0.16)	0	0.19(0.6)	0.19(0.6)	0
synthesis	0.33(0.91)	0.24(0.62)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
wesee	0.33(0.82)	0.26(0.63)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)	0
wmatch	0.38(0.96)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
xmap	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
xmapgen	24(120)	3.71(7.16)	0.05(0.07)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
xmapsig	1.4(4.56)	0.67(1.37)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
yam++	2.62(5.83)	1.24(2.07)	0.06(0.08)	0.01(0)	0.05(0.22)	0.05(0.22)	0

Table 3.5: Measures related to problem size for *conference* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
aml	1.55(3.4)	0.83(1.51)	0.06(0.06)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
amlbk	1.24(2.84)	0.71(1.55)	0.05(0.07)	0.01(0)	0.05(0.22)	0.05(0.22)	0
aot	106(230)	14(15)	0.32(0.73)	0.02(0.01)	0.1(0.45)	0.1(0.45)	0
aotl	65(246)	4.81(5.69)	0.35(1.38)	0.01(0)	0	0	0
aroma	24(36)	4.52(4.34)	0.09(0.14)	0.01(0.01)	0.29(1.31)	0.29(1.31)	0
ase	64(136)	8.4(9.48)	0.11(0.31)	0.01(0.01)	0.15(0.49)	0.15(0.49)	0
autom	0.43(1.08)	0.29(0.78)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
cidercl	30(57)	3.9(3.06)	0.13(0.33)	0.01(0.01)	0.55(1.7)	0.55(1.7)	0
codi	2.29(4.19)	1.19(1.33)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
cromatcher	26(38)	8.41(6.59)	0.15(0.36)	0.01(0.01)	0.13(0.52)	0.13(0.52)	0
gomma	0.14(0.36)	0.14(0.48)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
hertuda	0.43(0.97)	0.33(0.72)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
hotmatch	0.43(0.97)	0.33(0.72)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
iama	0.33(0.91)	0.19(0.51)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
logmap	1.71(1.97)	1.27(1.61)	0.05(0.06)	0.01(0)	0.05(0.21)	0.05(0.21)	0
logmapc	0.24(0.89)	0.1(0.44)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
logmaplt	0.57(1.01)	0.52(0.86)	0.04(0.05)	0.01(0)	0.05(0.21)	0.05(0.21)	0
maasmatch	63(80)	14(9.8)	1.46(5.59)	0.01(0)	1.35(5.18)	1.35(5.18)	0
mapsss	4.81(12)	1.5(2.55)	0.04(0.05)	0.01(0)	0.07(0.34)	0.07(0.34)	0
medley	92(185)	14(14)	0.34(0.75)	0.01(0.01)	0.24(0.89)	0.24(0.89)	0
odgoms	2.52(7.98)	0.64(1.25)	0.04(0.05)	0.01(0)	0.1(0.37)	0.1(0.37)	0
omreasoner	0.29(0.9)	0.14(0.48)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
ontok2	0.29(0.9)	0.14(0.48)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
optima	13(23)	3.48(2.94)	0.07(0.12)	0.01(0)	0.05(0.22)	0.05(0.22)	0
rimom	134(105)	49(39)	0.84(2.92)	0.19(0.62)	0.05(0.22)	0.05(0.22)	0
rsdlwb	0.33(0.91)	0.24(0.62)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
servomap	5.88(12)	1.43(2.26)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
servomapl	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
stringsauto	2.29(4)	1.1(1.48)	0.07(0.16)	0.01(0)	0.19(0.6)	0.19(0.6)	0
synthesis	0.33(0.91)	0.24(0.62)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
wesee	0.33(0.82)	0.26(0.63)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
wmatch	0.38(0.96)	0.24(0.62)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
xmap	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
xmapgen	51(276)	3.98(8.09)	0.05(0.07)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
xmapsig	2.45(8.47)	0.69(1.49)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
yam++	2.62(5.83)	1.24(2.07)	0.06(0.08)	0.01(0)	0.05(0.22)	0.05(0.22)	0

Table 3.6: Measures related to problem size for *conference* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	$\mathsf{diff}^{\approx}$	eqViol	$\#\mathcal{M}$
aml	21,693(23,022)	14,674(7,880)	15,421(10,002)	215,834(242,873)	224,179(254,295)	658(864)	6
amlbk	21,693(25,739)	14,674(8,811)	15,495(11,005)	219,971(272,276)	227,701(283,698)	450(587)	3
amlbkr	21,693(25,739)	14,674(8,811)	14,786(10,488)	245,953(331,944)	254,650(345,368)	495(642)	3
amlbku	21,693(25,739)	14,674(8,811)	20,059(15,225)	221,545(218,703)	228,305(228,328)	2,145(2,610)	3
amlbkur	21,693(25,739)	14,674(8,811)	19,019(14,558)	322,967(410,312)	333,571(426,199)	2,414(2,851)	3
amlr	21,693(25,739)	14,674(8,811)	14,391(10,196)	241,692(326,635)	249,814(339,199)	415(543)	3
aot	3,720(0)	6,551(0)	7,392(0)	28,182(0)	28,288(0)	261(0)	1
aotl	3,720(0)	6,551(0)	1,580(0)	7,025(0)	7,039(0)	71(0)	1
aroma	21,693(25,739)	14,674(8,811)	13,054(9,483)	248,316(222,830)	254,236(229,364)	226(159)	3
autom	3,720(0)	6,551(0)	3,618(0)	6,197(0)	6,225(0)	125(0)	1
gomma	21,693(23,022)	14,674(7,880)	11,232(7,708)	75,020(91,435)	78,498(96,431)	349(342)	6
gommabk	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	837(586)	3
gommasbk	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	837(586)	3
hertuda	6,951(3,730)	9,991(3,972)	7,360(1,453)	37,745(13,274)	38,267(13,720)	3,393(1,964)	4
hotmatch	6,951(3,730)	9,991(3,972)	4,419(163)	7,281(1,396)	7,367(1,312)	3(1.15)	4
iama	21,693(25,739)	14,674(8,811)	7,605(7,990)	40,568(62,906)	41,750(64,929)	159(211)	3
logmap	21,693(22,291)	14,674(7,630)	15,046(9,818)	310,975(410,621)	321,205(425,060)	1,170(1,150)	9
logmap2noe	21,693(25,739)	14,674(8,811)	14,949(10,959)	270,028(396,794)	279,099(411,340)	1,088(1,133)	3
logmapbio	21,693(25,739)	14,674(8,811)	15,792(11,738)	395,781(589,758)	409,235(611,467)	1,629(1,744)	3
logmapbk	21,693(25,739)	14,674(8,811)	15,299(11,519)	320,091(479,286)	330,268(495,804)	1,185(1,280)	3
logmapc	21,693(25,739)	14,674(8,811)	9,472(6,744)	601(944)	914(1,268)	85(130)	3
logmaplt	21,693(22,291)	14,674(7,630)	10,056(8,923)	101,460(138,569)	105,338(144,264)	546(623)	9
maasmatch	5,335(3,231)	8,271(3,440)	9,244(4,707)	185,844(334,586)	188,388(339,418)	277(363)	4
mapsss	21,693(25,739)	14,674(8,811)	9,699(8,475)	166,075(243,308)	170,587(250,527)	124(148)	3
odgoms	6,951(3,730)	9,991(3,972)	6,600(3,499)	39,797(52,680)	40,336(53,621)	77(31)	4
omreasoner	21,693(25,739)	14,674(8,811)	6,668(6,559)	26,172(34,065)	26,906(35,270)	388(608)	3
rsdlwb	3,720(0)	6,551(0)	1,456(0)	830(0)	830(0)	0	1
servomap	21,693(23,022)	14,674(7,880)	13,398(8,550)	163,725(151,703)	168,588(157,448)	623(860)	6
servomapl	21,693(25,739)	14,674(8,811)	13,696(9,303)	137,511(149,148)	143,138(157,864)	539(564)	3
sphere	21,693(25,739)	14,674(8,811)	8,883(8,605)	114,132(185,194)	117,527(190,779)	253(354)	3
stringsauto	3,720(0)	6,551(0)	3,880(0)	8,312(0)	8,321(0)	21(0)	1
wmatch	3,720(0)	6,551(0)	6,356(0)	15,581(0)	15,794(0)	550(0)	1
xmap	21,693(25,739)	14,674(8,811)	16,213(11,624)	252,390(286,300)	261,393(299,637)	416(504)	3
xmapgen	6,951(4,569)	9,991(4,864)	3,514(198)	21,100(2,077)	21,231(2,158)	831(878)	2
xmapsig	6,951(4,569)	9,991(4,864)	3,145(24)	11,635(2,056)	11,716(1,986)	665(771)	2
yam++	21,693(23,022)	14,674(7,880)	13,955(8,287)	119,698(109,862)	124,698(116,612)	350(308)	6

Table 3.7: Measures related to problem size for *largebio-big* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
aml	165,010(170,118)	3,984(3,198)	30(23)	131(177)	43(49)	111(59)	0.5(0.84)
amlbk	170,180(194,335)	3,657(3,287)	28(19)	129(196)	49(51)	122(106)	0.67(1.15)
amlbkr	181,157(228,892)	3,867(3,342)	28(22)	140(212)	49(51)	106(70)	0.67(1.15)
amlbku	137,545(111,730)	6,157(5,183)	23(12)	97(118)	52(50)	172(162)	1.33(2.31)
amlbkur	180,241(195,448)	6,692(6,045)	26(20)	209(311)	177(272)	304(214)	1(1.73)
amlr	185,589(235,005)	3,634(3,094)	30(26)	137(204)	35(58)	98(61)	0.67(1.15)
aot	20,964(0)	1,244(0)	25(0)	2.36(0)	1,289(0)	1,305(0)	14(0)
aotl	4,850(0)	209(0)	15(0)	0.76(0)	12(0)	12(0)	0
aroma	209,578(197,024)	2,882(2,205)	30(16)	107(141)	35(58)	100(74)	0.67(1.15)
autom	5,273(0)	472(0)	57(0)	1.4(0)	37(0)	37(0)	0
gomma	69,216(84,315)	2,216(1,977)	22(14)	51(71)	34(53)	86(64)	0.33(0.52)
gommabk	92,645(83,613)	3,606(2,357)	22(8.58)	58(77)	38(64)	108(43)	0
gommasbk	94,395(83,586)	3,619(2,371)	21(8.67)	59(79)	53(56)	116(53)	0
hertuda	16,951(200)	3,148(308)	15(2.11)	45(26)	51(58)	51(59)	0
hotmatch	7,272(1,389)	454(55)	13(2.37)	3.09(1.88)	55(64)	56(64)	0
iama	39,577(61,360)	1,234(1,581)	16(5.42)	29(47)	12(21)	30(27)	0
logmap	186,270(228,747)	4,353(3,524)	28(21)	165(232)	39(54)	113(99)	0.56(0.88)
logmap2noe	181,243(255,164)	4,310(3,895)	28(23)	160(258)	38(62)	93(83)	0.33(0.58)
logmapbio	191,692(258,633)	5,009(4,302)	35(35)	165(261)	39(61)	113(112)	0.67(1.15)
logmapbk	184,866(257,895)	4,470(4,068)	29(26)	178(286)	39(62)	107(103)	0.33(0.58)
logmapc	550(855)	120(193)	14(1.55)	11(15)	40(61)	158(60)	0.67(1.15)
logmaplt	75,777(102,213)	2,338(2,585)	21(12)	61(87)	34(51)	72(54)	0
maasmatch	151,864(277,391)	1,723(2,132)	28(30)	47(91)	27(53)	48(56)	0
mapsss	149,868(223,250)	1,781(1,857)	25(17)	100(157)	12(21)	35(6.24)	0.33(0.58)
odgoms	37,698(49,755)	1,046(792)	16(2.68)	12(17)	51(58)	52(58)	0
omreasoner	24,202(34,416)	1,094(967)	14(2.42)	19(28)	12(21)	20(19)	0
rsdlwb	830(0)	115(0)	14(0)	0.49(0)	0	0	0
servomap	127,109(110,580)	3,247(2,568)	25(15)	127(208)	36(53)	77(58)	0.17(0.41)
servomapl	102,214(100,041)	2,851(2,294)	24(13)	85(127)	40(61)	94(82)	1(1.73)
sphere	62,948(97,552)	1,531(1,895)	20(11)	44(71)	35(58)	205(200)	0
stringsauto	8,117(0)	488(0)	18(0)	1.32(0)	0	0	0
wmatch	10,405(0)	1,273(0)	66(0)	2.43(0)	109(0)	110(0)	0
xmap	261,201(304,949)	3,599(3,085)	36(30)	154(226)	35(58)	101(37)	0.67(1.15)
xmapgen	12,276(1,734)	672(165)	14(3.53)	33(45)	76(107)	76(107)	0
xmapsig	8,340(4,003)	535(93)	13(3.05)	32(44)	76(107)	76(107)	0
yam++	106,188(97,217)	3,152(2,325)	23(10)	82(110)	36(53)	82(62)	0.17(0.41)

Table 3.8: Measures related to problem size for *largebio-big* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	$\#$**disj**	$\lvert\mathcal{R}^{\approx}{}_{\mathbf{2}}\rvert$	$\mathbf{t}_d$**(s)**	$\mathbf{t}_r$**(s)**	**basicViol**	**diff**$^{\approx}$	**eqViol**
aml	215,834(242,873)	3,995(3,195)	32(24)	202(299)	43(49)	117(72)	0.5(0.84)
amlbk	219,971(272,276)	3,623(3,231)	29(20)	166(256)	48(51)	130(119)	0.67(1.15)
amlbkr	245,953(331,944)	3,898(3,372)	30(25)	165(253)	50(51)	112(82)	0.67(1.15)
amlbku	221,545(218,703)	6,482(5,388)	26(16)	130(175)	40(55)	171(168)	1(1.73)
amlbkur	322,967(410,312)	6,972(6,043)	31(27)	478(766)	189(261)	326(246)	0.67(1.15)
amlr	241,692(326,635)	3,685(3,116)	31(25)	169(259)	35(58)	91(52)	0.67(1.15)
aot	28,182(0)	1,216(0)	25(0)	2.63(0)	1,289(0)	1,305(0)	14(0)
aotl	7,025(0)	220(0)	15(0)	0.85(0)	12(0)	12(0)	0
aroma	248,316(222,830)	2,912(2,223)	31(17)	116(147)	35(58)	97(89)	1(1.73)
autom	6,197(0)	488(0)	53(0)	1.27(0)	37(0)	37(0)	0
gomma	75,020(91,435)	2,275(2,003)	21(9.54)	54(76)	34(53)	97(78)	0.33(0.52)
gommabk	135,638(128,895)	3,645(2,320)	25(13)	77(103)	65(54)	144(73)	0
gommasbk	135,638(128,895)	3,656(2,325)	24(11)	78(103)	65(54)	144(73)	0
hertuda	37,745(13,274)	3,326(247)	15(2.19)	44(39)	51(58)	51(59)	0
hotmatch	7,281(1,396)	452(51)	14(3.17)	3.35(1.98)	55(64)	56(64)	0
iama	40,568(62,906)	1,172(1,478)	16(4.87)	26(42)	12(21)	37(37)	0.33(0.58)
logmap	310,975(410,621)	4,417(3,583)	35(30)	376(553)	37(55)	108(90)	0.89(1.36)
logmap2noe	270,028(396,794)	4,307(3,889)	33(31)	268(443)	38(62)	101(94)	0.67(1.15)
logmapbio	395,781(589,758)	5,083(4,383)	37(37)	469(785)	37(64)	113(112)	0.67(1.15)
logmapbk	320,091(479,286)	4,574(4,220)	33(31)	413(691)	37(64)	106(102)	0.67(1.15)
logmapc	601(944)	119(192)	14(2.04)	10(14)	40(61)	158(59)	0.67(1.15)
logmaplt	101,460(138,569)	2,382(2,622)	21(11)	77(111)	34(51)	76(58)	0.33(0.5)
maasmatch	185,844(334,586)	1,809(2,272)	29(30)	56(109)	27(53)	50(58)	0
mapsss	166,075(243,308)	1,797(1,868)	26(19)	101(158)	12(21)	35(6.24)	0.33(0.58)
odgoms	39,797(52,680)	1,047(816)	16(2.6)	12(17)	51(58)	51(59)	0
omreasoner	26,172(34,065)	1,127(965)	14(2.62)	28(28)	12(21)	20(19)	0
rsdlwb	830(0)	115(0)	16(0)	0.77(0)	0	0	0
servomap	163,725(151,703)	3,864(3,054)	25(12)	145(195)	35(52)	74(48)	0.17(0.41)
servomapl	137,511(149,148)	2,834(2,104)	25(16)	97(146)	39(61)	88(74)	1(1.73)
sphere	114,132(185,194)	1,553(1,918)	22(15)	67(111)	35(58)	227(224)	0
stringsauto	8,312(0)	491(0)	18(0)	1.56(0)	0	0	0
wmatch	15,581(0)	1,350(0)	65(0)	2.23(0)	109(0)	110(0)	0
xmap	252,390(286,300)	3,564(2,996)	35(27)	141(205)	36(58)	98(32)	0.67(1.15)
xmapgen	21,100(2,077)	698(177)	14(4.18)	4.25(3.28)	76(107)	76(107)	0
xmapsig	11,635(2,056)	572(113)	14(3.44)	2.97(1.99)	76(107)	76(107)	0
yam++	119,698(109,862)	3,174(2,351)	24(12)	87(116)	35(52)	81(47)	0.33(0.82)

Table 3.9: Measures related to problem size for *largebio-big* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
aml	93,534(22,451)	85,449(28,714)	13,639(8,319)	230,361(129,032)	235,186(133,764)	422(656)	6
amlbk	93,534(25,101)	85,449(32,104)	13,579(8,590)	212,145(113,411)	216,817(117,573)	76(68)	3
amlbkr	93,534(25,101)	85,449(32,104)	13,101(8,359)	157,574(74,191)	161,298(78,284)	84(73)	3
amlbku	93,534(25,101)	85,449(32,104)	19,830(14,843)	567,664(315,502)	577,846(320,551)	2,147(2,371)	3
amlbkur	93,534(25,101)	85,449(32,104)	18,794(14,226)	650,070(518,940)	664,715(538,187)	2,352(2,669)	3
amlr	93,534(25,101)	85,449(32,104)	12,326(8,334)	128,573(68,647)	131,119(71,244)	65(65)	3
aroma	39,716(15,317)	74,099(68,477)	6,353(1,922)	186,817(187,310)	189,206(190,585)	168(186)	2
gomma	80,426(37,674)	75,739(39,260)	13,884(8,788)	121,309(88,700)	124,717(93,074)	565(498)	6
gommabk	67,317(49,018)	66,029(50,398)	20,916(13,073)	287,030(240,330)	302,802(253,127)	2,178(1,695)	3
gommasbk	93,534(25,101)	85,449(32,104)	21,163(13,240)	339,468(217,729)	354,542(228,438)	2,198(1,696)	3
iama	93,534(25,101)	85,449(32,104)	8,224(8,200)	70,382(68,248)	71,704(70,323)	385(386)	3
logmap	84,795(32,978)	78,976(35,279)	13,859(8,228)	248,954(189,568)	254,780(195,939)	896(732)	9
logmap2noe	67,317(49,018)	66,029(50,398)	14,724(10,597)	254,161(291,205)	260,649(300,093)	929(849)	3
logmapbio	93,534(25,101)	85,449(32,104)	15,170(9,169)	437,916(288,984)	447,274(300,722)	1,464(935)	3
logmapbk	93,534(25,101)	85,449(32,104)	14,009(9,664)	307,501(250,183)	313,459(257,919)	961(894)	3
logmapc	93,534(25,101)	85,449(32,104)	9,218(6,134)	3,289(5,638)	3,674(6,257)	67(95)	3
logmaplt	84,795(32,978)	78,976(35,279)	12,040(10,338)	131,297(118,953)	134,761(123,824)	932(823)	9
mapsss	28,885(0)	25,678(0)	5,168(0)	7,323(0)	7,431(0)	92(0)	1
omreasoner	79,042(0)	66,914(0)	2,806(0)	43,387(0)	43,392(0)	1(0)	1
servomap	80,426(37,674)	75,739(39,260)	14,768(9,385)	590,365(460,575)	598,986(465,565)	1,013(1,180)	6
servomapl	67,317(49,018)	66,029(50,398)	14,658(10,230)	472,031(396,955)	481,518(405,818)	801(763)	3
sphere	93,534(25,101)	85,449(32,104)	9,779(8,466)	91,762(80,985)	93,900(84,419)	258(268)	3
xmap	93,534(25,101)	85,449(32,104)	16,015(10,080)	343,203(262,277)	352,327(272,970)	253(152)	3
yam++	80,426(37,674)	75,739(39,260)	14,992(9,099)	357,923(255,685)	364,813(257,489)	550(498)	6

Table 3.10: Measures related to problem size for *largebio-small* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
aml	69,750(55,697)	2,797(2,125)	41(28)	146(109)	38(74)	94(108)	0.33(0.82)
amlbk	81,661(75,139)	2,482(1,908)	44(31)	167(138)	0.67(1.15)	56(53)	0.33(0.58)
amlbkr	61,718(60,149)	2,448(1,945)	35(23)	134(111)	14(24)	69(93)	0.33(0.58)
amlbku	146,406(113,909)	5,856(4,860)	47(37)	237(185)	14(23)	257(221)	1.33(2.31)
amlbkur	158,514(161,439)	6,209(5,655)	57(48)	269(280)	67(115)	344(314)	1(1.73)
amlr	54,482(53,603)	2,186(1,841)	34(21)	126(101)	13(23)	44(63)	0
aroma	27,450(15,489)	1,234(284)	34(38)	59(71)	0	41(49)	0
gomma	49,857(46,906)	2,582(2,063)	65(50)	120(102)	25(58)	64(47)	0.67(1.03)
gommabk	82,235(59,667)	5,185(3,412)	33(26)	130(109)	9.67(17)	196(184)	0
gommasbk	75,064(52,954)	5,180(3,360)	37(24)	156(115)	0	173(155)	1.33(2.31)
iama	25,937(37,413)	1,377(1,546)	33(20)	92(71)	0.67(1.15)	29(42)	0.33(0.58)
logmap	81,441(76,262)	3,374(2,352)	58(43)	154(128)	13(36)	54(40)	0.22(0.67)
logmap2noe	91,778(110,562)	3,609(3,062)	98(47)	162(182)	39(60)	82(48)	0.33(0.58)
logmapbio	97,820(85,712)	4,166(2,525)	43(33)	175(151)	0	103(114)	0
logmapbk	95,185(104,699)	3,596(2,898)	45(27)	170(159)	1.33(2.31)	57(67)	0.33(0.58)
logmapc	2,883(4,994)	179(292)	26(15)	68(43)	0.33(0.58)	41(70)	1(1.73)
logmaplt	46,560(55,563)	2,722(2,448)	52(43)	113(95)	61(73)	83(87)	0.22(0.44)
mapsss	6,513(0)	580(0)	163(0)	6.95(0)	246(0)	254(0)	3(0)
omreasoner	3,614(0)	224(0)	8.49(0)	23(0)	0	0	0
servomap	143,802(109,531)	3,660(2,935)	94(52)	254(214)	24(42)	94(55)	0.5(0.84)
servomapl	141,497(118,110)	3,271(2,492)	120(53)	223(217)	47(61)	132(48)	1.33(2.31)
sphere	37,821(51,330)	1,597(1,662)	38(25)	113(99)	1(1.73)	91(140)	0
xmap	151,880(143,679)	3,333(2,519)	59(49)	254(220)	4.33(7.51)	62(48)	0
yam++	119,867(95,477)	3,474(2,331)	84(51)	192(146)	23(46)	100(55)	0.17(0.41)

Table 3.11: Measures related to problem size for *largebio-small* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_{\mathbf{2}}\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
aml	230,361(129,032)	2,806(2,126)	49(34)	289(219)	24(57)	70(85)	0.67(1.63)
amlbk	212,145(113,411)	2,488(1,905)	58(45)	287(213)	0	45(50)	0.33(0.58)
amlbkr	157,574(74,191)	2,470(1,945)	40(28)	201(154)	1(1.73)	39(59)	0.33(0.58)
amlbku	567,664(315,502)	5,850(4,807)	73(56)	621(425)	0.33(0.58)	200(168)	2(3.46)
amlbkur	650,070(518,940)	6,211(5,580)	90(110)	747(770)	14(24)	229(209)	2.67(4.62)
amlr	128,573(68,647)	2,196(1,856)	36(23)	176(136)	1(1.73)	22(30)	0
aroma	186,817(187,310)	1,244(296)	67(86)	314(422)	0	31(35)	0
gomma	121,309(88,700)	2,641(2,107)	75(50)	200(168)	24(58)	64(47)	0.67(1.03)
gommabk	287,030(240,330)	5,199(3,409)	113(57)	308(260)	28(45)	209(185)	0
gommasbk	339,468(217,729)	5,200(3,301)	53(39)	352(247)	0	163(221)	0
iama	70,382(68,248)	1,356(1,529)	45(30)	138(105)	0	31(52)	0.33(0.58)
logmap	248,954(189,568)	3,395(2,397)	69(45)	300(249)	12(36)	53(60)	0.56(0.88)
logmap2noe	254,161(291,205)	3,617(3,035)	121(66)	338(377)	36(62)	79(68)	0.33(0.58)
logmapbio	437,916(288,984)	4,227(2,508)	63(57)	459(396)	0	67(56)	1(1.73)
logmapbk	307,501(250,183)	3,587(2,895)	53(46)	354(338)	0	49(79)	0.33(0.58)
logmapc	3,289(5,638)	185(299)	33(22)	71(45)	0.33(0.58)	40(68)	1(1.73)
logmaplt	131,297(118,953)	2,781(2,456)	74(50)	190(146)	17(36)	41(48)	0.33(0.5)
mapsss	7,323(0)	589(0)	159(0)	8.83(0)	246(0)	248(0)	3(0)
omreasoner	43,387(0)	222(0)	20(0)	33(0)	0	0	0
servomap	590,365(460,575)	3,770(2,997)	140(70)	844(656)	20(43)	66(43)	0.33(0.82)
servomapl	472,031(396,955)	3,274(2,509)	146(32)	591(524)	41(65)	102(74)	1.33(2.31)
sphere	91,762(80,985)	1,609(1,658)	41(29)	161(134)	0.67(1.15)	103(154)	0
xmap	343,203(262,277)	3,320(2,499)	84(73)	420(368)	3.33(5.77)	33(37)	0
yam++	357,923(255,685)	3,488(2,381)	101(56)	428(308)	20(47)	78(55)	0.33(0.82)

Table 3.12: Measures related to problem size for *largebio-small* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
aml	6,575(0)	8,376(0)	7,813(1,567)	5,554,328(8,718,087)	5,592,164(8,762,163)	457,221(789,364)	3
codi	6,575(0)	8,376(0)	6,570(0)	285,361(0)	290,785(0)	199(0)	1
gomma	6,575(0)	8,376(0)	10,126(0)	19,061,985(0)	19,155,578(0)	2,058,958(0)	1
hertuda	6,575(0)	8,376(0)	12,032(0)	26,673,406(0)	26,782,359(0)	3,853,399(0)	2
hotmatch	6,575(0)	8,376(0)	5,260(0)	93,701(0)	95,671(0)	55(0)	2
iama	6,575(0)	8,376(0)	378(0)	1,236(0)	1,325(0)	12(0)	1
logmap	6,575(0)	8,376(0)	5,835(276)	178,311(31,385)	183,506(31,861)	961(82)	4
logmapc	6,575(0)	8,376(0)	2,925(0)	0	86(0)	31(0)	1
logmaplt	6,575(0)	8,376(0)	8,192(25)	9,124,527(82,467)	9,197,059(82,930)	475,504(8,915)	3
maasmatch	6,575(0)	8,376(0)	8,922(0)	10,298,959(0)	10,388,940(0)	505,215(0)	1
mapsss	6,575(0)	8,376(0)	2,208(0)	125,070(0)	128,387(0)	157(0)	1
odgoms	6,575(0)	8,376(0)	7,794(0)	427,728(0)	433,421(0)	2,507(0)	1
optima	6,575(0)	8,376(0)	1,380(0)	89,379(0)	91,098(0)	406(0)	1
rsdlwb	6,575(0)	8,376(0)	342(0)	495(0)	510(0)	2(0)	1
servomap	6,575(0)	8,376(0)	6,379(1,761)	2,030,701(2,797,469)	2,049,668(2,822,695)	34,832(49,237)	2
servomapl	6,575(0)	8,376(0)	6,482(0)	1,718,682(0)	1,743,115(0)	10,454(0)	1
stringsauto	6,575(0)	8,376(0)	1,624(0)	7,205(0)	7,334(0)	6(0)	1
wesee	6,575(0)	8,376(0)	5,870(0)	125,803(0)	128,682(0)	38(0)	1
xmap	6,575(0)	8,376(0)	11,948(0)	24,398,269(0)	24,507,254(0)	3,324,400(0)	1
xmapsig	6,575(0)	8,376(0)	2,870(0)	108,042(0)	111,957(0)	282(0)	1
yam++	6,575(0)	8,376(0)	7,746(274)	2,449,208(862,134)	2,477,373(870,637)	20,002(19,837)	2

Table 3.13: Measures related to problem size for *library* in *OAEI* 2012-2014 dataset, grouped by matcher.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
aml	108,005(9,511)	3,789(1,491)	39(56)	45(33)	0	1(0)	0
codi	191,456(0)	1,947(0)	7.96(0)	42(0)	0	5(0)	0
gomma	89,144(0)	6,213(0)	134(0)	79(0)	0	1(0)	0
hertuda	158,642(0)	8,219(0)	206(5.15)	92(0.63)	0	5(0)	0
hotmatch	85,936(0)	1,284(0)	3.81(0.23)	19(1.82)	0	7(0)	0
iama	474(0)	50(0)	1.34(0)	0.99(0)	0	7(0)	0
logmap	57,623(8,354)	2,214(157)	3.77(0.27)	15(1.25)	0	4.5(4.12)	0
logmapc	0	30(0)	1.1(0)	1.21(0)	0	12(0)	0
logmaplt	139,910(2,014)	4,372(25)	59(1.29)	92(1.05)	0	5(1.73)	0
maasmatch	60,261(0)	3,006(0)	65(0)	174(0)	0	0	0
mapsss	45,910(0)	441(0)	3.11(0)	9.58(0)	0	0	0
odgoms	119,236(0)	3,280(0)	6.17(0)	29(0)	0	16(0)	0
optima	37,017(0)	434(0)	2.47(0)	6.93(0)	0	0	0
rsdlwb	462(0)	32(0)	1.23(0)	0.97(0)	0	0	0
servomap	75,973(35,998)	2,406(1,645)	15(17)	18(9.2)	0	5(7.07)	0
servomapl	130,448(0)	2,502(0)	15(0)	27(0)	0	2(0)	0
stringsauto	6,952(0)	245(0)	1.34(0)	2.25(0)	0	1(0)	0
wesee	120,025(0)	1,602(0)	4.67(0)	26(0)	0	2(0)	0
xmap	114,334(0)	7,897(0)	197(0)	87(0)	0	1(0)	0
xmapsig	34,956(0)	800(0)	2.59(0)	7.52(0)	0	0	0
yam++	159,453(28,028)	3,514(247)	19(4.65)	67(35)	0	2.5(0.71)	0

Table 3.14: Measures related to problem size for *library* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
aml	5,554,328(8,718,087)	3,756(1,404)	51(70)	1,807(2,945)	0	24(9.45)	0
codi	285,361(0)	1,968(0)	8.24(0)	54(0)	0	2(0)	0
gomma	19,061,985(0)	5,915(0)	165(0)	6,656(0)	0	27(0)	0
hertuda	26,673,406(0)	7,672(0)	248(0.59)	12,156(430)	0	21(0)	0
hotmatch	93,701(0)	1,287(0.71)	3.79(0.04)	21(1.41)	0	7(0)	0
iama	1,236(0)	48(0)	1.09(0)	0.9(0)	0	7(0)	0
logmap	178,311(31,385)	2,293(142)	5.53(0.38)	33(3.03)	0	21(3.11)	0
logmapc	0	30(0)	1.21(0)	1.4(0)	0	12(0)	0
logmaplt	9,124,527(82,467)	4,318(50)	76(1.19)	3,151(567)	0	23(3.61)	0
maasmatch	10,298,959(0)	3,624(0)	86(0)	1,538(0)	0	6(0)	0
mapsss	125,070(0)	445(0)	3.95(0)	19(0)	0	0	0
odgoms	427,728(0)	3,568(0)	7.92(0)	104(0)	0	20(0)	0
optima	89,379(0)	469(0)	3.63(0)	13(0)	0	0	0
rsdlwb	495(0)	31(0)	1.09(0)	0.83(0)	0	0	0
servomap	2,030,701(2,797,469)	2,414(1,661)	21(25)	658(913)	0	19(26)	0
servomapl	1,718,682(0)	2,519(0)	21(0)	339(0)	0	16(0)	0
stringsauto	7,205(0)	246(0)	1.67(0)	2.08(0)	0	1(0)	0
wesee	125,803(0)	1,613(0)	5.1(0)	29(0)	0	9(0)	0
xmap	24,398,269(0)	7,499(0)	231(0)	11,955(0)	0	26(0)	0
xmapsig	108,042(0)	820(0)	3.79(0)	20(0)	0	7(0)	0
yam++	2,449,208(862,134)	3,627(219)	29(9.35)	767(367)	0	23(2.12)	0

Table 3.15: Measures related to problem size for *library* in *OAEI* 2012-2014 dataset, grouped by matcher. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	14,786(10,488)	245,953(331,944)	254,650(345,368)	495(642)	3
largebio_small	93,534(25,101)	85,449(32,104)	13,101(8,359)	157,574(74,191)	161,298(78,284)	84(73)	3

Table 3.16: Measures related to problem size for AML-BKR in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	181,157(228,892)	3,867(3,342)	28(22)	140(212)	49(51)	106(70)	0.67(1.15)
largebio_small	61,718(60,149)	2,448(1,945)	35(23)	134(111)	14(24)	69(93)	0.33(0.58)

Table 3.17: Measures related to problem size for AML-BKR in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	245,953(331,944)	3,898(3,372)	30(25)	165(253)	50(51)	112(82)	0.67(1.15)
largebio_small	157,574(74,191)	2,470(1,945)	40(28)	201(154)	1(1.73)	39(59)	0.33(0.58)

Table 3.18: Measures related to problem size for AML-BKR in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,954(0)	4,724(0)	4,737(0)	0	1
conference	110(31)	121(44)	19(7.67)	1.24(2.84)	1.29(2.87)	0	21
largebio_big	21,693(25,739)	14,674(8,811)	15,495(11,005)	219,971(272,276)	227,701(283,698)	450(587)	3
largebio_small	93,534(25,101)	85,449(32,104)	13,579(8,590)	212,145(113,411)	216,817(117,573)	76(68)	3

Table 3.19: Measures related to problem size for AML-BK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	4,724(0)	303(0)	0.65(0)	0.64(0)	0	2(0)	0
conference	1.24(2.84)	0.71(1.55)	0.05(0.07)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	170,180(194,335)	3,657(3,287)	28(19)	129(196)	49(51)	122(106)	0.67(1.15)
largebio_small	81,661(75,139)	2,482(1,908)	44(31)	167(138)	0.67(1.15)	56(53)	0.33(0.58)

Table 3.20: Measures related to problem size for AML-BK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	4,724(0)	303(0)	0.66(0)	0.63(0)	0	2(0)	0
conference	1.24(2.84)	0.71(1.55)	0.05(0.07)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	219,971(272,276)	3,623(3,231)	29(20)	166(256)	48(51)	130(119)	0.67(1.15)
largebio_small	212,145(113,411)	2,488(1,905)	58(45)	287(213)	0	45(50)	0.33(0.58)

Table 3.21: Measures related to problem size for AML-BK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	19,019(14,558)	322,967(410,312)	333,571(426,199)	2,414(2,851)	3
largebio_small	93,534(25,101)	85,449(32,104)	18,794(14,226)	650,070(518,940)	664,715(538,187)	2,352(2,669)	3

Table 3.22: Measures related to problem size for AML-BKUR in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	180,241(195,448)	6,692(6,045)	26(20)	209(311)	177(272)	304(214)	1(1.73)
largebio_small	158,514(161,439)	6,209(5,655)	57(48)	269(280)	67(115)	344(314)	1(1.73)

Table 3.23: Measures related to problem size for AML-BKUR in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	322,967(410,312)	6,972(6,043)	31(27)	478(766)	189(261)	326(246)	0.67(1.15)
largebio_small	650,070(518,940)	6,211(5,580)	90(110)	747(770)	14(24)	229(209)	2.67(4.62)

Table 3.24: Measures related to problem size for AML-BKUR in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	20,059(15,225)	221,545(218,703)	228,305(228,328)	2,145(2,610)	3
largebio_small	93,534(25,101)	85,449(32,104)	19,830(14,843)	567,664(315,502)	577,846(320,551)	2,147(2,371)	3

Table 3.25: Measures related to problem size for AML-BKU in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	137,545(111,730)	6,157(5,183)	23(12)	97(118)	52(50)	172(162)	1.33(2.31)
largebio_small	146,406(113,909)	5,856(4,860)	47(37)	237(185)	14(23)	257(221)	1.33(2.31)

Table 3.26: Measures related to problem size for AML-BKU in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	221,545(218,703)	6,482(5,388)	26(16)	130(175)	40(55)	171(168)	1(1.73)
largebio_small	567,664(315,502)	5,850(4,807)	73(56)	621(425)	0.33(0.58)	200(168)	2(3.46)

Table 3.27: Measures related to problem size for AML-BKU in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	14,391(10,196)	241,692(326,635)	249,814(339,199)	415(543)	3
largebio_small	93,534(25,101)	85,449(32,104)	12,326(8,334)	128,573(68,647)	131,119(71,244)	65(65)	3

Table 3.28: Measures related to problem size for AML-R in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	185,589(235,005)	3,634(3,094)	30(26)	137(204)	35(58)	98(61)	0.67(1.15)
largebio_small	54,482(53,603)	2,186(1,841)	34(21)	126(101)	13(23)	44(63)	0

Table 3.29: Measures related to problem size for AML-R in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	$\#$**disj**	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	$\mathbf{t}_d$**(s)**	$\mathbf{t}_r$**(s)**	**basicViol**	**diff**$^{\approx}$	**eqViol**
largebio_big	241,692(326,635)	3,685(3,116)	31(25)	169(259)	35(58)	91(52)	0.67(1.15)
largebio_small	128,573(68,647)	2,196(1,856)	36(23)	176(136)	1(1.73)	22(30)	0

Table 3.30: Measures related to problem size for AML-R in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,793(231)	2,918(2,556)	2,931(2,558)	3.5(4.95)	2
conference	110(31)	121(43)	20(8.48)	1.55(3.4)	1.55(3.4)	0	42
largebio_big	21,693(23,022)	14,674(7,880)	15,421(10,002)	215,834(242,873)	224,179(254,295)	658(864)	6
largebio_small	93,534(22,451)	85,449(28,714)	13,639(8,319)	230,361(129,032)	235,186(133,764)	422(656)	6
library	6,575(0)	8,376(0)	7,813(1,567)	5,554,328(8,718,087)	5,592,164(8,762,163)	457,221(789,364)	3

Table 3.31: Measures related to problem size for AML in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,906(2,539)	264(39)	0.8(0.07)	0.69(0.24)	0	2(0)	0
conference	1.55(3.4)	0.83(1.51)	0.06(0.06)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
largebio_big	165,010(170,118)	3,984(3,198)	30(23)	131(177)	43(49)	111(59)	0.5(0.84)
largebio_small	69,750(55,697)	2,797(2,125)	41(28)	146(109)	38(74)	94(108)	0.33(0.82)
library	108,005(9,511)	3,789(1,491)	39(56)	45(33)	0	1(0)	0

Table 3.32: Measures related to problem size for AML in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,918(2,556)	267(44)	0.83(0.05)	0.66(0.21)	0	2(0)	0
conference	1.55(3.4)	0.83(1.51)	0.06(0.06)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
largebio_big	215,834(242,873)	3,995(3,195)	32(24)	202(299)	43(49)	117(72)	0.5(0.84)
largebio_small	230,361(129,032)	2,806(2,126)	49(34)	289(219)	24(57)	70(85)	0.67(1.63)
library	5,554,328(8,718,087)	3,756(1,404)	51(70)	1,807(2,945)	0	24(9.45)	0

Table 3.33: Measures related to problem size for AML in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	336(0)	1,480(0)	1,514(0)	48(0)	1
conference	110(31)	121(44)	29(12)	65(246)	66(249)	2.95(8.81)	21
largebio_big	3,720(0)	6,551(0)	1,580(0)	7,025(0)	7,039(0)	71(0)	1

Table 3.34: Measures related to problem size for AOTL in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	770(0)	79(0)	0.54(0)	0.24(0)	0	0	0
conference	14(28)	4.9(5.89)	0.35(1.37)	0.01(0.01)	0	0	0
largebio_big	4,850(0)	209(0)	15(0)	0.76(0)	12(0)	12(0)	0

Table 3.35: Measures related to problem size for AOTL in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,480(0)	87(0)	0.54(0)	0.22(0)	0	0	0
conference	65(246)	4.81(5.69)	0.35(1.38)	0.01(0)	0	0	0
largebio_big	7,025(0)	220(0)	15(0)	0.85(0)	12(0)	12(0)	0

Table 3.36: Measures related to problem size for AOTL in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	5,400(0)	24,968(0)	25,284(0)	2,063(0)	1
conference	107(27)	123(44)	122(40)	106(230)	108(231)	8.45(14)	20
largebio_big	3,720(0)	6,551(0)	7,392(0)	28,182(0)	28,288(0)	261(0)	1

Table 3.37: Measures related to problem size for AOT in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	9,394(0)	2,073(0)	1.14(0)	2.23(0)	0	0	0
conference	53(104)	13(15)	0.29(0.7)	0.02(0.01)	0.4(1.19)	0.4(1.19)	0
largebio_big	20,964(0)	1,244(0)	25(0)	2.36(0)	1,289(0)	1,305(0)	14(0)

Table 3.38: Measures related to problem size for AOT in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	24,968(0)	2,212(0)	1.18(0)	5.04(0)	0	0	0
conference	106(230)	14(15)	0.32(0.73)	0.02(0.01)	0.1(0.45)	0.1(0.45)	0
largebio_big	28,182(0)	1,216(0)	25(0)	2.63(0)	1,289(0)	1,305(0)	14(0)

Table 3.39: Measures related to problem size for AOT in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,412(0)	1,981(0)	2,007(0)	6(0)	1
conference	110(31)	121(44)	40(15)	24(36)	24(36)	0.38(0.8)	21
largebio_big	21,693(25,739)	14,674(8,811)	13,054(9,483)	248,316(222,830)	254,236(229,364)	226(159)	3
largebio_small	39,716(15,317)	74,099(68,477)	6,353(1,922)	186,817(187,310)	189,206(190,585)	168(186)	2

Table 3.40: Measures related to problem size for Aroma in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,916(0)	250(0)	0.78(0)	0.49(0)	0	2(0)	0
conference	23(35)	4.57(4.44)	0.09(0.15)	0.01(0.01)	0.29(1.31)	0.29(1.31)	0
largebio_big	209,578(197,024)	2,882(2,205)	30(16)	107(141)	35(58)	100(74)	0.67(1.15)
largebio_small	27,450(15,489)	1,234(284)	34(38)	59(71)	0	41(49)	0

Table 3.41: Measures related to problem size for Aroma in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,981(0)	249(0)	0.81(0)	0.5(0)	0	2(0)	0
conference	24(36)	4.52(4.34)	0.09(0.14)	0.01(0.01)	0.29(1.31)	0.29(1.31)	0
largebio_big	248,316(222,830)	2,912(2,223)	31(17)	116(147)	35(58)	97(89)	1(1.73)
largebio_small	186,817(187,310)	1,244(296)	67(86)	314(422)	0	31(35)	0

Table 3.42: Measures related to problem size for Aroma in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
conference	110(31)	121(44)	15(10)	0.43(1.08)	0.43(1.08)	0	21
largebio_big	3,720(0)	6,551(0)	3,618(0)	6,197(0)	6,225(0)	125(0)	1

Table 3.43: Measures related to problem size for Autom in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
conference	0.43(1.08)	0.29(0.78)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	5,273(0)	472(0)	57(0)	1.4(0)	37(0)	37(0)	0

Table 3.44: Measures related to problem size for Autom in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
conference	0.43(1.08)	0.29(0.78)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	6,197(0)	488(0)	53(0)	1.27(0)	37(0)	37(0)	0

Table 3.45: Measures related to problem size for Autom in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,424(0)	47,155(0)	47,441(0)	98(0)	1
conference	112(31)	118(42)	47(13)	30(57)	30(57)	0.2(0.62)	20

Table 3.46: Measures related to problem size for CIDER-CL in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	22,805(0)	778(0)	2.02(0)	1.99(0)	0	3(0)	0
conference	30(57)	3.9(3.08)	0.13(0.33)	0.01(0)	0.55(1.7)	0.55(1.7)	0

Table 3.47: Measures related to problem size for CIDER-CL in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	47,155(0)	817(0)	2.11(0)	4.02(0)	0	3(0)	0
conference	30(57)	3.9(3.06)	0.13(0.33)	0.01(0.01)	0.55(1.7)	0.55(1.7)	0

Table 3.48: Measures related to problem size for CIDER-CL in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,603(0)	2,409(0)	2,425(0)	2(0)	1
conference	110(31)	121(44)	22(6.73)	2.29(4.19)	2.33(4.19)	0	21
library	6,575(0)	8,376(0)	6,570(0)	285,361(0)	290,785(0)	199(0)	1

Table 3.49: Measures related to problem size for Codi in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,404(0)	197(0)	0.65(0)	0.43(0)	0	2(0)	0
conference	2.29(4.19)	1.19(1.33)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
library	191,456(0)	1,947(0)	7.96(0)	42(0)	0	5(0)	0

Table 3.50: Measures related to problem size for Codi in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,409(0)	193(0)	0.63(0)	0.46(0)	0	2(0)	0
conference	2.29(4.19)	1.19(1.33)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
library	285,361(0)	1,968(0)	8.24(0)	54(0)	0	2(0)	0

Table 3.51: Measures related to problem size for Codi in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,077(0)	3,941(0)	3,979(0)	100(0)	1
largebio_big	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	837(586)	3
largebio_small	67,317(49,018)	66,029(50,398)	20,916(13,073)	287,030(240,330)	302,802(253,127)	2,178(1,695)	3

Table 3.52: Measures related to problem size for GommaBK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	3,056(0)	406(0)	0.63(0)	0.6(0)	0	2(0)	0
largebio_big	92,645(83,613)	3,606(2,357)	22(8.58)	58(77)	38(64)	108(43)	0
largebio_small	82,235(59,667)	5,185(3,412)	33(26)	130(109)	9.67(17)	196(184)	0

Table 3.53: Measures related to problem size for GommaBK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	3,941(0)	423(0)	0.69(0)	0.58(0)	0	2(0)	0
largebio_big	135,638(128,895)	3,645(2,320)	25(13)	77(103)	65(54)	144(73)	0
largebio_small	287,030(240,330)	5,199(3,409)	113(57)	308(260)	28(45)	209(185)	0

Table 3.54: Measures related to problem size for GommaBK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	15,823(9,525)	135,638(128,895)	142,157(137,462)	837(586)	3
largebio_small	93,534(25,101)	85,449(32,104)	21,163(13,240)	339,468(217,729)	354,542(228,438)	2,198(1,696)	3

Table 3.55: Measures related to problem size for GommaSBK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	94,395(83,586)	3,619(2,371)	21(8.67)	59(79)	53(56)	116(53)	0
largebio_small	75,064(52,954)	5,180(3,360)	37(24)	156(115)	0	173(155)	1.33(2.31)

Table 3.56: Measures related to problem size for GommaSBK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	135,638(128,895)	3,656(2,325)	24(11)	78(103)	65(54)	144(73)	0
largebio_small	339,468(217,729)	5,200(3,301)	53(39)	352(247)	0	163(221)	0

Table 3.57: Measures related to problem size for GommaSBK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,717(312)	3,454(422)	3,474(437)	65(30)	3
conference	110(31)	121(44)	16(6.99)	0.14(0.36)	0.14(0.36)	0	21
largebio_big	21,693(23,022)	14,674(7,880)	11,232(7,708)	75,020(91,435)	78,498(96,431)	349(342)	6
largebio_small	80,426(37,674)	75,739(39,260)	13,884(8,788)	121,309(88,700)	124,717(93,074)	565(498)	6
library	6,575(0)	8,376(0)	10,126(0)	19,061,985(0)	19,155,578(0)	2,058,958(0)	1

Table 3.58: Measures related to problem size for Gomma in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,637(363)	295(96)	0.64(0.01)	0.53(0.05)	0	2(0)	0
conference	0.14(0.36)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	69,216(84,315)	2,216(1,977)	22(14)	51(71)	34(53)	86(64)	0.33(0.52)
largebio_small	49,857(46,906)	2,582(2,063)	65(50)	120(102)	25(58)	64(47)	0.67(1.03)
library	89,144(0)	6,213(0)	134(0)	79(0)	0	1(0)	0

Table 3.59: Measures related to problem size for Gomma in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	3,454(422)	312(96)	0.65(0.02)	0.51(0.05)	0	2(0)	0
conference	0.14(0.36)	0.14(0.48)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	75,020(91,435)	2,275(2,003)	21(9.54)	54(76)	34(53)	97(78)	0.33(0.52)
largebio_small	121,309(88,700)	2,641(2,107)	75(50)	200(168)	24(58)	64(47)	0.67(1.03)
library	19,061,985(0)	5,915(0)	165(0)	6,656(0)	0	27(0)	0

Table 3.60: Measures related to problem size for Gomma in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,960(0)	1,978(0)	2,056(0)	576(0)	2
conference	110(31)	121(43)	20(7.37)	0.43(0.97)	0.43(0.97)	0	42
largebio_big	6,951(3,730)	9,991(3,972)	7,360(1,453)	37,745(13,274)	38,267(13,720)	3,393(1,964)	4
library	6,575(0)	8,376(0)	12,032(0)	26,673,406(0)	26,782,359(0)	3,853,399(0)	2

Table 3.61: Measures related to problem size for Hertuda in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,080(0)	1,090(0)	0.63(0.02)	61(0.15)	0	2(0)	0
conference	0.43(0.97)	0.33(0.72)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	16,951(200)	3,148(308)	15(2.11)	45(26)	51(58)	51(59)	0
library	158,642(0)	8,219(0)	206(5.15)	92(0.63)	0	5(0)	0

Table 3.62: Measures related to problem size for Hertuda in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,978(0)	1,092(0)	0.61(0.01)	12(0.14)	0	0	0
conference	0.43(0.97)	0.33(0.72)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	37,745(13,274)	3,326(247)	15(2.19)	44(39)	51(58)	51(59)	0
library	26,673,406(0)	7,672(0)	248(0.59)	12,156(430)	0	21(0)	0

Table 3.63: Measures related to problem size for Hertuda in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,980(0)	619(0)	627(0)	0	2
conference	110(31)	121(43)	21(8.37)	0.43(0.97)	0.43(0.97)	0	42
largebio_big	6,951(3,730)	9,991(3,972)	4,419(163)	7,281(1,396)	7,367(1,312)	3(1.15)	4
library	6,575(0)	8,376(0)	5,260(0)	93,701(0)	95,671(0)	55(0)	2

Table 3.64: Measures related to problem size for HotMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	619(0)	135(0)	0.59(0.02)	0.26(0)	0	0	0
conference	0.43(0.97)	0.33(0.72)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	7,272(1,389)	454(55)	13(2.37)	3.09(1.88)	55(64)	56(64)	0
library	85,936(0)	1,284(0)	3.81(0.23)	19(1.82)	0	7(0)	0

Table 3.65: Measures related to problem size for HotMatch in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	619(0)	135(0)	0.59(0.02)	0.28(0)	0	0	0
conference	0.43(0.97)	0.33(0.72)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	7,281(1,396)	452(51)	14(3.17)	3.35(1.98)	55(64)	56(64)	0
library	93,701(0)	1,287(0.71)	3.79(0.04)	21(1.41)	0	7(0)	0

Table 3.66: Measures related to problem size for HotMatch in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,692(0)	396(0)	404(0)	0	1
conference	110(31)	121(44)	18(7.26)	0.33(0.91)	0.33(0.91)	0	21
largebio_big	21,693(25,739)	14,674(8,811)	7,605(7,990)	40,568(62,906)	41,750(64,929)	159(211)	3
largebio_small	93,534(25,101)	85,449(32,104)	8,224(8,200)	70,382(68,248)	71,704(70,323)	385(386)	3
library	6,575(0)	8,376(0)	378(0)	1,236(0)	1,325(0)	12(0)	1

Table 3.67: Measures related to problem size for LAMA in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	$\#$disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	396(0)	103(0)	0.59(0)	0.27(0)	0	0	0
conference	0.33(0.91)	0.19(0.51)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	39,577(61,360)	1,234(1,581)	16(5.42)	29(47)	12(21)	30(27)	0
largebio_small	25,937(37,413)	1,377(1,546)	33(20)	92(71)	0.67(1.15)	29(42)	0.33(0.58)
library	474(0)	50(0)	1.34(0)	0.99(0)	0	7(0)	0

Table 3.68: Measures related to problem size for LAMA in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	$\#$disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	396(0)	103(0)	0.58(0)	0.27(0)	0	0	0
conference	0.33(0.91)	0.19(0.51)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	40,568(62,906)	1,172(1,478)	16(4.87)	26(42)	12(21)	37(37)	0.33(0.58)
largebio_small	70,382(68,248)	1,356(1,529)	45(30)	138(105)	0	31(52)	0.33(0.58)
library	1,236(0)	48(0)	1.09(0)	0.9(0)	0	7(0)	0

Table 3.69: Measures related to problem size for LAMA in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	14,949(10,959)	270,028(396,794)	279,099(411,340)	1,088(1,133)	3
largebio_small	67,317(49,018)	66,029(50,398)	14,724(10,597)	254,161(291,205)	260,649(300,093)	929(849)	3

Table 3.70: Measures related to problem size for LogMap2Noe in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	$\#$disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	181,243(255,164)	4,310(3,895)	28(23)	160(258)	38(62)	93(83)	0.33(0.58)
largebio_small	91,778(110,562)	3,609(3,062)	98(47)	162(182)	39(60)	82(48)	0.33(0.58)

Table 3.71: Measures related to problem size for LogMap2Noe in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	270,028(396,794)	4,307(3,889)	33(31)	268(443)	38(62)	101(94)	0.67(1.15)
largebio_small	254,161(291,205)	3,617(3,035)	121(66)	338(377)	36(62)	79(68)	0.33(0.58)

Table 3.72: Measures related to problem size for LogMap2Noe in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,107(0)	5,771(0)	5,861(0)	180(0)	1
largebio_big	21,693(25,739)	14,674(8,811)	15,792(11,738)	395,781(589,758)	409,235(611,467)	1,629(1,744)	3
largebio_small	93,534(25,101)	85,449(32,104)	15,170(9,169)	437,916(288,984)	447,274(300,722)	1,464(935)	3

Table 3.73: Measures related to problem size for LogMapBio in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	3,901(0)	546(0)	0.74(0)	0.71(0)	0	2(0)	0
largebio_big	191,692(258,633)	5,009(4,302)	35(35)	165(261)	39(61)	113(112)	0.67(1.15)
largebio_small	97,820(85,712)	4,166(2,525)	43(33)	175(151)	0	103(114)	0

Table 3.74: Measures related to problem size for LogMapBio in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	5,771(0)	551(0)	0.7(0)	0.74(0)	0	2(0)	0
largebio_big	395,781(589,758)	5,083(4,383)	37(37)	469(785)	37(64)	113(112)	0.67(1.15)
largebio_small	437,916(288,984)	4,227(2,508)	63(57)	459(396)	0	67(56)	1(1.73)

Table 3.75: Measures related to problem size for LogMapBio in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	15,299(11,519)	320,091(479,286)	330,268(495,804)	1,185(1,280)	3
largebio_small	93,534(25,101)	85,449(32,104)	14,009(9,664)	307,501(250,183)	313,459(257,919)	961(894)	3

Table 3.76: Measures related to problem size for LogMapBK in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	184,866(257,895)	4,470(4,068)	29(26)	178(286)	39(62)	107(103)	0.33(0.58)
largebio_small	95,185(104,699)	3,596(2,898)	45(27)	170(159)	1.33(2.31)	57(67)	0.33(0.58)

Table 3.77: Measures related to problem size for LogMapBK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	320,091(479,286)	4,574(4,220)	33(31)	413(691)	37(64)	106(102)	0.67(1.15)
largebio_small	307,501(250,183)	3,587(2,895)	53(46)	354(338)	0	49(79)	0.33(0.58)

Table 3.78: Measures related to problem size for LogMapBK in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,235(0)	0	2(0)	0	1
conference	110(31)	121(44)	20(7.66)	0.24(0.89)	0.24(0.89)	0	21
largebio_big	21,693(25,739)	14,674(8,811)	9,472(6,744)	601(944)	914(1,268)	85(130)	3
largebio_small	93,534(25,101)	85,449(32,104)	9,218(6,134)	3,289(5,638)	3,674(6,257)	67(95)	3
library	6,575(0)	8,376(0)	2,925(0)	0	86(0)	31(0)	1

Table 3.79: Measures related to problem size for LogMapC in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	0	0	0.56(0)	0.25(0)	0	2(0)	0
conference	0.24(0.89)	0.1(0.44)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	550(855)	120(193)	14(1.55)	11(15)	40(61)	158(60)	0.67(1.15)
largebio_small	2,883(4,994)	179(292)	26(15)	68(43)	0.33(0.58)	41(70)	1(1.73)
library	0	30(0)	1.1(0)	1.21(0)	0	12(0)	0

Table 3.80: Measures related to problem size for LogMapC in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	0	0	0.57(0)	0.25(0)	0	2(0)	0
conference	0.24(0.89)	0.1(0.44)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	601(944)	119(192)	14(2.04)	10(14)	40(61)	158(59)	0.67(1.15)
largebio_small	3,289(5,638)	185(299)	33(22)	71(45)	0.33(0.58)	40(68)	1(1.73)
library	0	30(0)	1.21(0)	1.4(0)	0	12(0)	0

Table 3.81: Measures related to problem size for LogMapC in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,304(1.15)	2,984(3.46)	2,997(3.46)	47(0.58)	3
conference	110(31)	121(43)	20(7.79)	0.57(1.01)	0.57(1.01)	0	63
largebio_big	21,693(22,291)	14,674(7,630)	10,056(8,923)	101,460(138,569)	105,338(144,264)	546(623)	9
largebio_small	84,795(32,978)	78,976(35,279)	12,040(10,338)	131,297(118,953)	134,761(123,824)	932(823)	9
library	6,575(0)	8,376(0)	8,192(25)	9,124,527(82,467)	9,197,059(82,930)	475,504(8,915)	3

Table 3.82: Measures related to problem size for LogMapLt in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,175(2.31)	213(0)	0.63(0.03)	0.45(0.02)	0	2(0)	0
conference	0.57(1.01)	0.52(0.86)	0.04(0.05)	0.01(0)	0.05(0.21)	0.05(0.21)	0
largebio_big	75,777(102,213)	2,338(2,585)	21(12)	61(87)	34(51)	72(54)	0
largebio_small	46,560(55,563)	2,722(2,448)	52(43)	113(95)	61(73)	83(87)	0.22(0.44)
library	139,910(2,014)	4,372(25)	59(1.29)	92(1.05)	0	5(1.73)	0

Table 3.83: Measures related to problem size for LogMapLt in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,984(3.46)	227(1.15)	0.63(0.02)	0.45(0.01)	0	2(0)	0
conference	0.57(1.01)	0.52(0.86)	0.04(0.05)	0.01(0)	0.05(0.21)	0.05(0.21)	0
largebio_big	101,460(138,569)	2,382(2,622)	21(11)	77(111)	34(51)	76(58)	0.33(0.5)
largebio_small	131,297(118,953)	2,781(2,456)	74(50)	190(146)	17(36)	41(48)	0.33(0.5)
library	9,124,527(82,467)	4,318(50)	76(1.19)	3,151(567)	0	23(3.61)	0

Table 3.84: Measures related to problem size for LogMapLt in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,802(5.2)	4,024(115)	4,060(119)	91(4.04)	3
conference	110(31)	121(43)	21(8.64)	1.71(1.97)	1.71(1.97)	0.05(0.21)	63
largebio_big	21,693(22,291)	14,674(7,630)	15,046(9,818)	310,975(410,621)	321,205(425,060)	1,170(1,150)	9
largebio_small	84,795(32,978)	78,976(35,279)	13,859(8,228)	248,954(189,568)	254,780(195,939)	896(732)	9
library	6,575(0)	8,376(0)	5,835(276)	178,311(31,385)	183,506(31,861)	961(82)	4

Table 3.85: Measures related to problem size for LogMap in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	3,019(6.35)	356(0)	0.68(0.02)	0.55(0.02)	0	2(0)	0
conference	1.67(1.98)	1.27(1.61)	0.05(0.06)	0.01(0)	0.05(0.21)	0.05(0.21)	0
largebio_big	186,270(228,747)	4,353(3,524)	28(21)	165(232)	39(54)	113(99)	0.56(0.88)
largebio_small	81,441(76,262)	3,374(2,352)	58(43)	154(128)	13(36)	54(40)	0.22(0.67)
library	57,623(8,354)	2,214(157)	3.77(0.27)	15(1.25)	0	4.5(4.12)	0

Table 3.86: Measures related to problem size for LogMap in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	4,024(115)	375(3.46)	0.69(0.02)	0.54(0.03)	0	2(0)	0
conference	1.71(1.97)	1.27(1.61)	0.05(0.06)	0.01(0)	0.05(0.21)	0.05(0.21)	0
largebio_big	310,975(410,621)	4,417(3,583)	35(30)	376(553)	37(55)	108(90)	0.89(1.36)
largebio_small	248,954(189,568)	3,395(2,397)	69(45)	300(249)	12(36)	53(60)	0.56(0.88)
library	178,311(31,385)	2,293(142)	5.53(0.38)	33(3.03)	0	21(3.11)	0

Table 3.87: Measures related to problem size for LogMap in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	3,959(1,551)	38,363(29,027)	38,535(29,133)	96(99)	3
conference	110(31)	121(43)	116(52)	63(80)	64(80)	0.44(1.64)	63
largebio_big	5,335(3,231)	8,271(3,440)	9,244(4,707)	185,844(334,586)	188,388(339,418)	277(363)	4
library	6,575(0)	8,376(0)	8,922(0)	10,298,959(0)	10,388,940(0)	505,215(0)	1

Table 3.88: Measures related to problem size for MaasMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	26,793(18,224)	1,007(694)	1.77(0.92)	1.83(0.99)	0	0.67(1.15)	0
conference	61(78)	14(10)	1.44(5.41)	0.01(0)	1.25(4.59)	1.25(4.59)	0
largebio_big	151,864(277,391)	1,723(2,132)	28(30)	47(91)	27(53)	48(56)	0
library	60,261(0)	3,006(0)	65(0)	174(0)	0	0	0

Table 3.89: Measures related to problem size for MaasMatch in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	38,363(29,027)	1,013(697)	1.78(0.91)	2.59(1.75)	0	0.67(1.15)	0
conference	63(80)	14(9.8)	1.46(5.59)	0.01(0)	1.35(5.18)	1.35(5.18)	0
largebio_big	185,844(334,586)	1,809(2,272)	29(30)	56(109)	27(53)	50(58)	0
library	10,298,959(0)	3,624(0)	86(0)	1,538(0)	0	6(0)	0

Table 3.90: Measures related to problem size for MaasMatch in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\text{Sig}(\mathcal{O}_1)\rvert$	$\lvert\text{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,512(122)	1,950(572)	1,964(569)	2(2.83)	2
conference	110(31)	121(43)	24(10)	4.81(12)	4.81(12)	0	42
largebio_big	21,693(25,739)	14,674(8,811)	9,699(8,475)	166,075(243,308)	170,587(250,527)	124(148)	3
largebio_small	28,885(0)	25,678(0)	5,168(0)	7,323(0)	7,431(0)	92(0)	1
library	6,575(0)	8,376(0)	2,208(0)	125,070(0)	128,387(0)	157(0)	1

Table 3.91: Measures related to problem size for MapSSS in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,940(585)	227(35)	0.62(0.02)	0.37(0.06)	0	2(0)	0
conference	4.81(12)	1.5(2.55)	0.04(0.05)	0.01(0)	0.07(0.34)	0.07(0.34)	0
largebio_big	149,868(223,250)	1,781(1,857)	25(17)	100(157)	12(21)	35(6.24)	0.33(0.58)
largebio_small	6,513(0)	580(0)	163(0)	6.95(0)	246(0)	254(0)	3(0)
library	45,910(0)	441(0)	3.11(0)	9.58(0)	0	0	0

Table 3.92: Measures related to problem size for MapSSS in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,950(572)	232(29)	0.64(0.01)	0.4(0.07)	0	2(0)	0
conference	4.81(12)	1.5(2.55)	0.04(0.05)	0.01(0)	0.07(0.34)	0.07(0.34)	0
largebio_big	166,075(243,308)	1,797(1,868)	26(19)	101(158)	12(21)	35(6.24)	0.33(0.58)
largebio_small	7,323(0)	589(0)	159(0)	8.83(0)	246(0)	248(0)	3(0)
library	125,070(0)	445(0)	3.95(0)	19(0)	0	0	0

Table 3.93: Measures related to problem size for MapSSS in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,206(0)	923(0)	936(0)	0	1
conference	110(31)	121(43)	21(9.56)	2.52(7.98)	2.52(7.98)	0	42
largebio_big	6,951(3,730)	9,991(3,972)	6,600(3,499)	39,797(52,680)	40,336(53,621)	77(31)	4
library	6,575(0)	8,376(0)	7,794(0)	427,728(0)	433,421(0)	2,507(0)	1

Table 3.94: Measures related to problem size for ODGOMS in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	923(0)	140(0)	0.58(0)	0.31(0)	0	2(0)	0
conference	2.52(7.98)	0.64(1.25)	0.04(0.05)	0.01(0)	0.1(0.37)	0.1(0.37)	0
largebio_big	37,698(49,755)	1,046(792)	16(2.68)	12(17)	51(58)	52(58)	0
library	119,236(0)	3,280(0)	6.17(0)	29(0)	0	16(0)	0

Table 3.95: Measures related to problem size for ODGOMS in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	923(0)	140(0)	0.62(0)	0.3(0)	0	2(0)	0
conference	2.52(7.98)	0.64(1.25)	0.04(0.05)	0.01(0)	0.1(0.37)	0.1(0.37)	0
largebio_big	39,797(52,680)	1,047(816)	16(2.6)	12(17)	51(58)	51(59)	0
library	427,728(0)	3,568(0)	7.92(0)	104(0)	0	20(0)	0

Table 3.96: Measures related to problem size for ODGOMS in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
conference	110(31)	121(44)	17(6.78)	0.29(0.9)	0.29(0.9)	0	21
largebio_big	21,693(25,739)	14,674(8,811)	6,668(6,559)	26,172(34,065)	26,906(35,270)	388(608)	3
largebio_small	79,042(0)	66,914(0)	2,806(0)	43,387(0)	43,392(0)	1(0)	1

Table 3.97: Measures related to problem size for OMReasoner in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
conference	0.29(0.9)	0.14(0.48)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	24,202(34,416)	1,094(967)	14(2.42)	19(28)	12(21)	20(19)	0
largebio_small	3,614(0)	224(0)	8.49(0)	23(0)	0	0	0

Table 3.98: Measures related to problem size for OMReasoner in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
conference	0.29(0.9)	0.14(0.48)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	26,172(34,065)	1,127(965)	14(2.62)	28(28)	12(21)	20(19)	0
largebio_small	43,387(0)	222(0)	20(0)	33(0)	0	0	0

Table 3.99: Measures related to problem size for OMReasoner in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,076(0)	8,304(0)	8,456(0)	177(0)	1
conference	110(31)	121(44)	31(11)	13(23)	13(23)	0.14(0.36)	21
library	6,575(0)	8,376(0)	1,380(0)	89,379(0)	91,098(0)	406(0)	1

Table 3.100: Measures related to problem size for Optima in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,928(0)	335(0)	0.69(0)	3.42(0)	0	2(0)	0
conference	12(23)	3.33(2.85)	0.07(0.12)	0.01(0)	0.05(0.22)	0.05(0.22)	0
library	37,017(0)	434(0)	2.47(0)	6.93(0)	0	0	0

Table 3.101: Measures related to problem size for Optima in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	8,304(0)	372(0)	0.72(0)	0.7(0)	0	2(0)	0
conference	13(23)	3.48(2.94)	0.07(0.12)	0.01(0)	0.05(0.22)	0.05(0.22)	0
library	89,379(0)	469(0)	3.63(0)	13(0)	0	0	0

Table 3.102: Measures related to problem size for Optima in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,891(0)	494(0)	504(0)	0	1
conference	110(31)	121(44)	17(6.79)	0.33(0.91)	0.33(0.91)	0	21
largebio_big	3,720(0)	6,551(0)	1,456(0)	830(0)	830(0)	0	1
library	6,575(0)	8,376(0)	342(0)	495(0)	510(0)	2(0)	1

Table 3.103: Measures related to problem size for RSDLWB in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	494(0)	115(0)	0.57(0)	0.25(0)	0	2(0)	0
conference	0.33(0.91)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	830(0)	115(0)	14(0)	0.49(0)	0	0	0
library	462(0)	32(0)	1.23(0)	0.97(0)	0	0	0

Table 3.104: Measures related to problem size for RSDLWB in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	494(0)	115(0)	0.59(0)	0.27(0)	0	2(0)	0
conference	0.33(0.91)	0.24(0.62)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	830(0)	115(0)	16(0)	0.77(0)	0	0	0
library	495(0)	31(0)	1.09(0)	0.83(0)	0	0	0

Table 3.105: Measures related to problem size for RSDLWB in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,952(0)	2,435(0)	2,484(0)	15(0)	1
conference	110(31)	121(44)	13(5.35)	0.1(0.3)	0.1(0.3)	0	21
largebio_big	21,693(25,739)	14,674(8,811)	13,696(9,303)	137,511(149,148)	143,138(157,864)	539(564)	3
largebio_small	67,317(49,018)	66,029(50,398)	14,658(10,230)	472,031(396,955)	481,518(405,818)	801(763)	3
library	6,575(0)	8,376(0)	6,482(0)	1,718,682(0)	1,743,115(0)	10,454(0)	1

Table 3.106: Measures related to problem size for ServOMapL in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	836(0)	140(0)	0.58(0)	0.27(0)	0	2(0)	0
conference	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	102,214(100,041)	2,851(2,294)	24(13)	85(127)	40(61)	94(82)	1(1.73)
largebio_small	141,497(118,110)	3,271(2,492)	120(53)	223(217)	47(61)	132(48)	1.33(2.31)
library	130,448(0)	2,502(0)	15(0)	27(0)	0	2(0)	0

Table 3.107: Measures related to problem size for ServOMapL in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,435(0)	162(0)	0.63(0)	0.31(0)	0	2(0)	0
conference	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	137,511(149,148)	2,834(2,104)	25(16)	97(146)	39(61)	88(74)	1(1.73)
largebio_small	472,031(396,955)	3,274(2,509)	146(32)	591(524)	41(65)	102(74)	1.33(2.31)
library	1,718,682(0)	2,519(0)	21(0)	339(0)	0	16(0)	0

Table 3.108: Measures related to problem size for ServOMapL in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	1,950(4.95)	747(69)	759(69)	13(18)	2
conference	110(31)	121(43)	20(7.88)	5.88(12)	5.9(12)	0.43(1.17)	42
largebio_big	21,693(23,022)	14,674(7,880)	13,398(8,550)	163,725(151,703)	168,588(157,448)	623(860)	6
largebio_small	80,426(37,674)	75,739(39,260)	14,768(9,385)	590,365(460,575)	598,986(465,565)	1,013(1,180)	6
library	6,575(0)	8,376(0)	6,379(1,761)	2,030,701(2,797,469)	2,049,668(2,822,695)	34,832(49,237)	2

Table 3.109: Measures related to problem size for ServOMap in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	721(105)	157(30)	0.62(0.01)	0.28(0.02)	0	1(1.41)	0
conference	4.79(10)	1.45(2.36)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	127,109(110,580)	3,247(2,568)	25(15)	127(208)	36(53)	77(58)	0.17(0.41)
largebio_small	143,802(109,531)	3,660(2,935)	94(52)	254(214)	24(42)	94(55)	0.5(0.84)
library	75,973(35,998)	2,406(1,645)	15(17)	18(9.2)	0	5(7.07)	0

Table 3.110: Measures related to problem size for ServOMap in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	747(69)	157(30)	0.59(0)	0.28(0.01)	0	1(1.41)	0
conference	5.88(12)	1.43(2.26)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	163,725(151,703)	3,864(3,054)	25(12)	145(195)	35(52)	74(48)	0.17(0.41)
largebio_small	590,365(460,575)	3,770(2,997)	140(70)	844(656)	20(43)	66(43)	0.33(0.82)
library	2,030,701(2,797,469)	2,414(1,661)	21(25)	658(913)	0	19(26)	0

Table 3.111: Measures related to problem size for ServOMap in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
largebio_big	21,693(25,739)	14,674(8,811)	8,883(8,605)	114,132(185,194)	117,527(190,779)	253(354)	3
largebio_small	93,534(25,101)	85,449(32,104)	9,779(8,466)	91,762(80,985)	93,900(84,419)	258(268)	3

Table 3.112: Measures related to problem size for Sphere in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	62,948(97,552)	1,531(1,895)	20(11)	44(71)	35(58)	205(200)	0
largebio_small	37,821(51,330)	1,597(1,662)	38(25)	113(99)	1(1.73)	91(140)	0

Table 3.113: Measures related to problem size for Sphere in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
largebio_big	114,132(185,194)	1,553(1,918)	22(15)	67(111)	35(58)	227(224)	0
largebio_small	91,762(80,985)	1,609(1,658)	41(29)	161(134)	0.67(1.15)	103(154)	0

Table 3.114: Measures related to problem size for Sphere in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,634(0)	2,493(0)	2,511(0)	32(0)	1
conference	110(31)	121(44)	21(7.55)	2.29(4)	2.29(4)	0	21
largebio_big	3,720(0)	6,551(0)	3,880(0)	8,312(0)	8,321(0)	21(0)	1
library	6,575(0)	8,376(0)	1,624(0)	7,205(0)	7,334(0)	6(0)	1

Table 3.115: Measures related to problem size for StringsAuto in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,424(0)	305(0)	0.61(0)	0.43(0)	0	2(0)	0
conference	2.29(4)	1.1(1.48)	0.07(0.16)	0	0.19(0.6)	0.19(0.6)	0
largebio_big	8,117(0)	488(0)	18(0)	1.32(0)	0	0	0
library	6,952(0)	245(0)	1.34(0)	2.25(0)	0	1(0)	0

Table 3.116: Measures related to problem size for StringsAuto in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	2,493(0)	308(0)	0.62(0)	0.47(0)	0	2(0)	0
conference	2.29(4)	1.1(1.48)	0.07(0.16)	0.01(0)	0.19(0.6)	0.19(0.6)	0
largebio_big	8,312(0)	491(0)	18(0)	1.56(0)	0	0	0
library	7,205(0)	246(0)	1.67(0)	2.08(0)	0	1(0)	0

Table 3.117: Measures related to problem size for StringsAuto in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	$\#\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,203(468)	4,082(4,452)	4,122(4,492)	5(4.24)	2
conference	110(31)	121(43)	17(6.63)	0.33(0.82)	0.33(0.82)	0	42
library	6,575(0)	8,376(0)	5,870(0)	125,803(0)	128,682(0)	38(0)	1

Table 3.118: Measures related to problem size for WeSeE in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,557(911)	218(1.41)	0.7(0.04)	0.34(0.02)	0	1(1.41)	0
conference	0.33(0.82)	0.26(0.63)	0.05(0.06)	0	0.05(0.22)	0.05(0.22)	0
library	120,025(0)	1,602(0)	4.67(0)	26(0)	0	2(0)	0

Table 3.119: Measures related to problem size for WeSeE in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	$\mathbf{t}_d$(s)	$\mathbf{t}_r$(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	4,082(4,452)	224(3.54)	0.68(0.09)	0.67(0.49)	0	1(1.41)	0
conference	0.33(0.82)	0.26(0.63)	0.05(0.06)	0.01(0)	0.05(0.22)	0.05(0.22)	0
library	125,803(0)	1,613(0)	5.1(0)	29(0)	0	9(0)	0

Table 3.120: Measures related to problem size for WeSeE in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,217(227)	850(407)	876(429)	87(123)	2
conference	110(31)	121(43)	20(7.55)	0.38(0.96)	0.38(0.96)	0	42
largebio_big	3,720(0)	6,551(0)	6,356(0)	15,581(0)	15,794(0)	550(0)	1

Table 3.121: Measures related to problem size for WMatch in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	689(179)	285(203)	0.59(0.02)	27(38)	0	2(0)	0
conference	0.38(0.96)	0.24(0.62)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	10,405(0)	1,273(0)	66(0)	2.43(0)	109(0)	110(0)	0

Table 3.122: Measures related to problem size for WMatch in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	850(407)	295(217)	0.6(0.02)	0.36(0.1)	0	2(0)	0
conference	0.38(0.96)	0.24(0.62)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	15,581(0)	1,350(0)	65(0)	2.23(0)	109(0)	110(0)	0

Table 3.123: Measures related to problem size for WMatch in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,611(0)	15,411(0)	15,669(0)	943(0)	1
conference	110(31)	121(43)	29(15)	51(276)	52(277)	3.79(16)	42
largebio_big	6,951(4,569)	9,991(4,864)	3,514(198)	21,100(2,077)	21,231(2,158)	831(878)	2

Table 3.124: Measures related to problem size for XMapGen in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,591(0)	451(0)	0.95(0)	1.37(0)	0	2(0)	0
conference	24(120)	3.71(7.16)	0.05(0.07)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
largebio_big	12,276(1,734)	672(165)	14(3.53)	33(45)	76(107)	76(107)	0

Table 3.125: Measures related to problem size for XMapGen in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	15,411(0)	510(0)	1.01(0)	0.64(0)	0	2(0)	0
conference	51(276)	3.98(8.09)	0.05(0.07)	0.01(0.01)	0.05(0.22)	0.05(0.22)	0
largebio_big	21,100(2,077)	698(177)	14(4.18)	4.25(3.28)	76(107)	76(107)	0

Table 3.126: Measures related to problem size for XMapGen in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,387(0)	6,614(0)	6,799(0)	437(0)	1
conference	110(31)	121(43)	18(7.74)	2.45(8.47)	2.6(8.51)	0.24(0.58)	42
largebio_big	6,951(4,569)	9,991(4,864)	3,145(24)	11,635(2,056)	11,716(1,986)	665(771)	2
library	6,575(0)	8,376(0)	2,870(0)	108,042(0)	111,957(0)	282(0)	1

Table 3.127: Measures related to problem size for XMapSig in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,121(0)	377(0)	0.75(0)	0.57(0)	0	2(0)	0
conference	1.4(4.56)	0.67(1.37)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	8,340(4,003)	535(93)	13(3.05)	32(44)	76(107)	76(107)	0
library	34,956(0)	800(0)	2.59(0)	7.52(0)	0	0	0

Table 3.128: Measures related to problem size for XMapSig in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	6,614(0)	428(0)	0.74(0)	2.19(0)	0	2(0)	0
conference	2.45(8.47)	0.69(1.49)	0.04(0.05)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	11,635(2,056)	572(113)	14(3.44)	2.97(1.99)	76(107)	76(107)	0
library	108,042(0)	820(0)	3.79(0)	20(0)	0	7(0)	0

Table 3.129: Measures related to problem size for XMapSig in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,740(0)	1,298(0)	1,311(0)	7(0)	1
conference	110(31)	121(44)	16(5.52)	0.1(0.3)	0.1(0.3)	0	21
largebio_big	21,693(25,739)	14,674(8,811)	16,213(11,624)	252,390(286,300)	261,393(299,637)	416(504)	3
largebio_small	93,534(25,101)	85,449(32,104)	16,015(10,080)	343,203(262,277)	352,327(272,970)	253(152)	3
library	6,575(0)	8,376(0)	11,948(0)	24,398,269(0)	24,507,254(0)	3,324,400(0)	1

Table 3.130: Measures related to problem size for XMap in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,215(0)	237(0)	0.61(0)	0.32(0)	0	2(0)	0
conference	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	261,201(304,949)	3,599(3,085)	36(30)	154(226)	35(58)	101(37)	0.67(1.15)
largebio_small	151,880(143,679)	3,333(2,519)	59(49)	254(220)	4.33(7.51)	62(48)	0
library	114,334(0)	7,897(0)	197(0)	87(0)	0	1(0)	0

Table 3.131: Measures related to problem size for XMap in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,298(0)	248(0)	0.59(0)	0.33(0)	0	2(0)	0
conference	0.1(0.3)	0.05(0.22)	0.04(0.05)	0	0.05(0.22)	0.05(0.22)	0
largebio_big	252,390(286,300)	3,564(2,996)	35(27)	141(205)	36(58)	98(32)	0.67(1.15)
largebio_small	343,203(262,277)	3,320(2,499)	84(73)	420(368)	3.33(5.77)	33(37)	0
library	24,398,269(0)	7,499(0)	231(0)	11,955(0)	0	26(0)	0

Table 3.132: Measures related to problem size for XMap in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

	Problem Size			Original Violations			Alignments
	I	II	III	IV	V	VI	
	$\lvert\mathsf{Sig}(\mathcal{O}_1)\rvert$	$\lvert\mathsf{Sig}(\mathcal{O}_2)\rvert$	$\lvert\mathcal{M}\rvert$	basicViol	diff$^{\approx}$	eqViol	#$\mathcal{M}$
anatomy	2,747(0)	3,306(0)	2,773(24)	1,123(7.78)	1,135(7.78)	23(0)	2
conference	110(31)	121(43)	25(10)	2.62(5.83)	2.71(6.03)	0	42
largebio_big	21,693(23,022)	14,674(7,880)	13,955(8,287)	119,698(109,862)	124,698(116,612)	350(308)	6
largebio_small	80,426(37,674)	75,739(39,260)	14,992(9,099)	357,923(255,685)	364,813(257,489)	550(498)	6
library	6,575(0)	8,376(0)	7,746(274)	2,449,208(862,134)	2,477,373(870,637)	20,002(19,837)	2

Table 3.133: Measures related to problem size for YAM++ in *OAEI* 2012-2014 dataset, grouped by track.

	Solution Size		Times		Remaining Violations		
	VII	IX	VIII	X	XI	XII	XIII
	#disj	$\lvert\mathcal{R}^{\approx}{}_1\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,081(7.78)	264(8.49)	0.59(0.01)	0.35(0.02)	0	2(0)	0
conference	2.62(5.83)	1.24(2.07)	0.06(0.08)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	106,188(97,217)	3,152(2,325)	23(10)	82(110)	36(53)	82(62)	0.17(0.41)
largebio_small	119,867(95,477)	3,474(2,331)	84(51)	192(146)	23(46)	100(55)	0.17(0.41)
library	159,453(28,028)	3,514(247)	19(4.65)	67(35)	0	2.5(0.71)	0

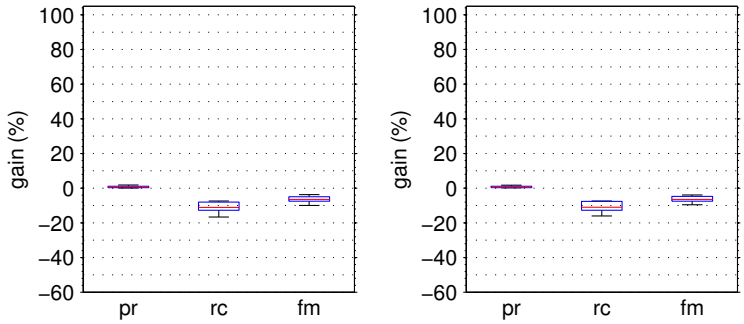
Table 3.134: Measures related to problem size for YAM++ in *OAEI* 2012-2014 dataset, grouped by track. The repair order is subsumption violations first, equivalence then.

	Solution Size		Times		Remaining Violations		
	XIV	XVI	XV	XVII	XVIII	XIX	XX
	#disj	$\lvert\mathcal{R}^{\approx}{}_2\rvert$	t_d(s)	t_r(s)	basicViol	diff$^{\approx}$	eqViol
anatomy	1,123(7.78)	266(4.24)	0.61(0.04)	0.33(0)	0	2(0)	0
conference	2.62(5.83)	1.24(2.07)	0.06(0.08)	0.01(0)	0.05(0.22)	0.05(0.22)	0
largebio_big	119,698(109,862)	3,174(2,351)	24(12)	87(116)	35(52)	81(47)	0.33(0.82)
largebio_small	357,923(255,685)	3,488(2,381)	101(56)	428(308)	20(47)	78(55)	0.33(0.82)
library	2,449,208(862,134)	3,627(219)	29(9.35)	767(367)	0	23(2.12)	0

Table 3.135: Measures related to problem size for YAM++ in *OAEI* 2012-2014 dataset, grouped by track. The repair order is equivalence violations first, subsumption then.

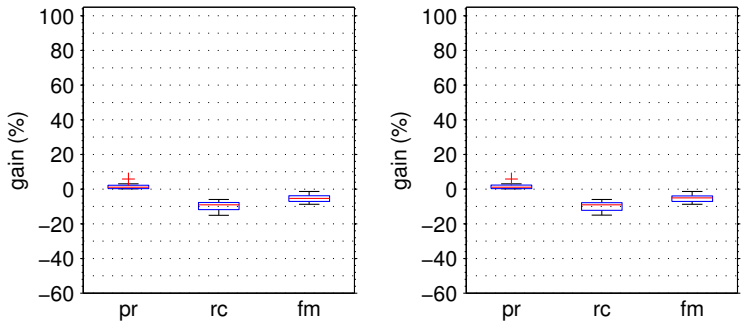
3.2 Repair Effects on Alignment Quality (Extended)

This section presents an evaluation of the effect of the proposed repair process on precision, recall and f-measure w.r.t. a reference alignment. The results of this section, consisting in Figures **??–??**, are grouped by matcher.



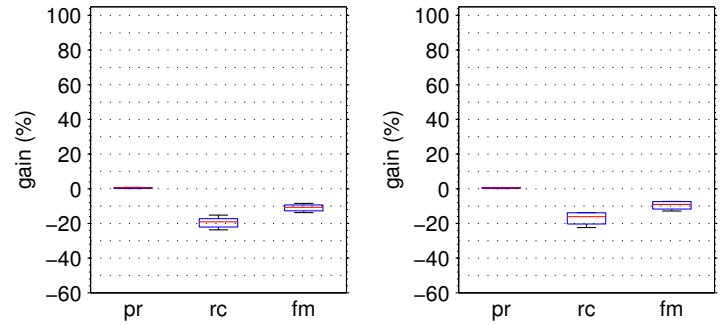
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.1: Repair effects for AML-BKR matcher.



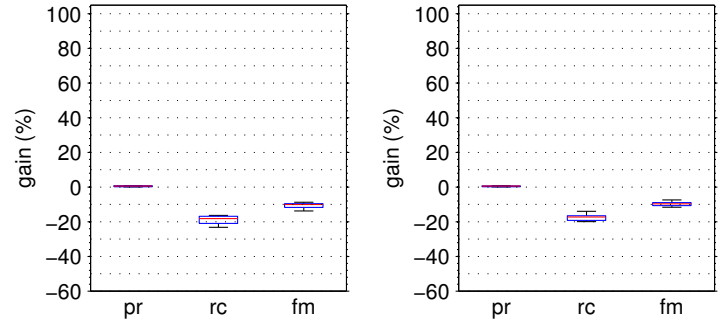
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.2: Repair effects for AML-BK matcher.



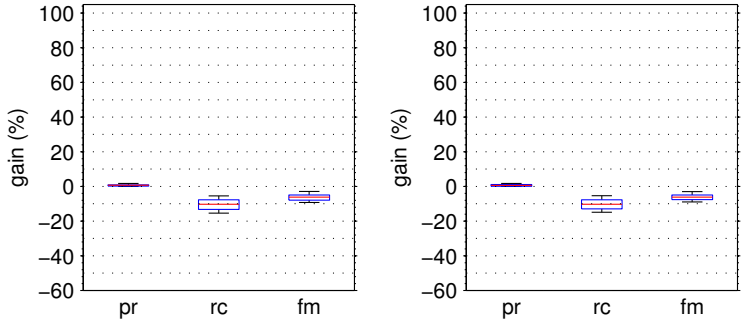
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.3: Repair effects for AML-BKUR matcher.



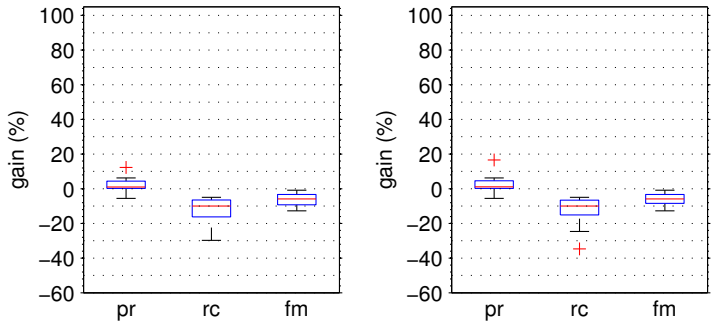
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.4: Repair effects for AML-BKU matcher.



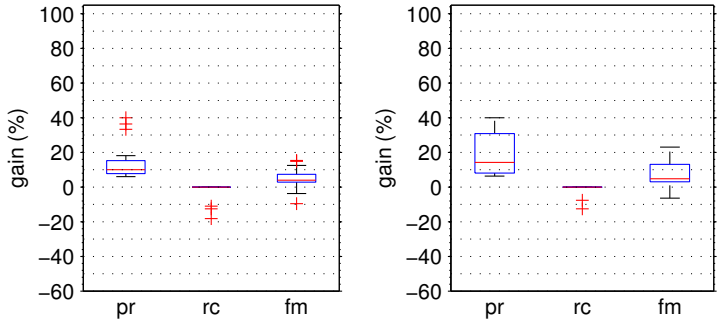
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.5: Repair effects for AML-R matcher.



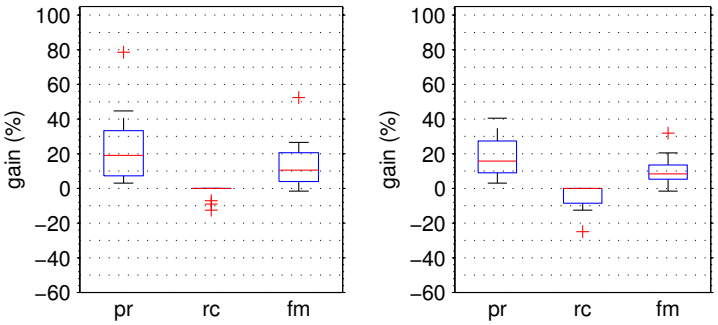
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.6: Repair effects for AML matcher.



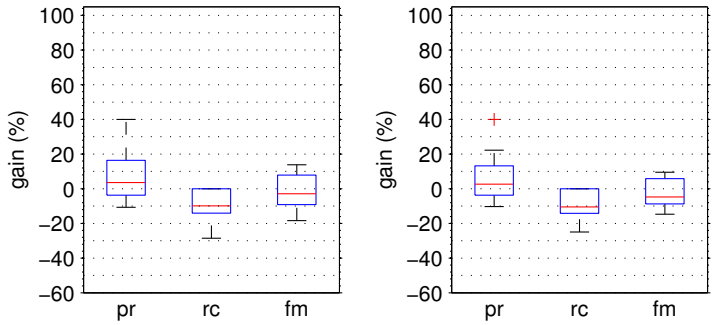
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.7: Repair effects for AOTL matcher.



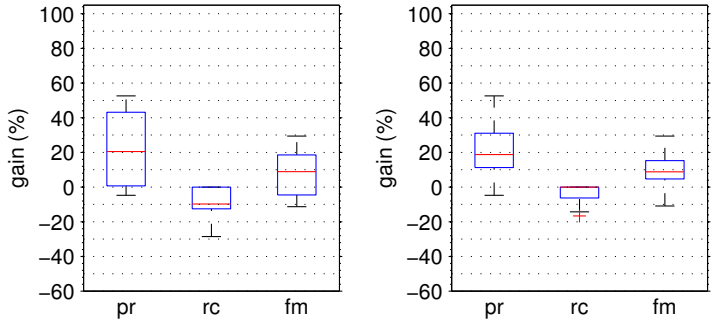
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.8: Repair effects for AOT matcher.



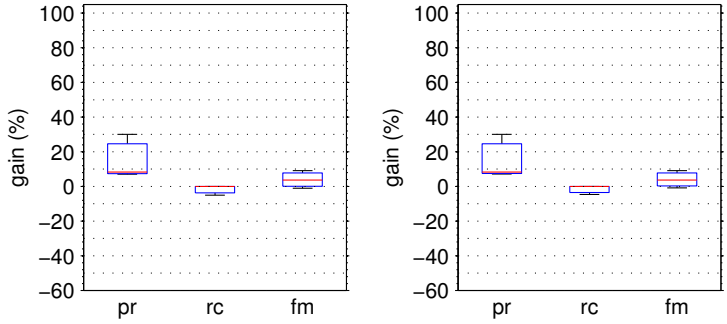
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.9: Repair effects for Aroma matcher.



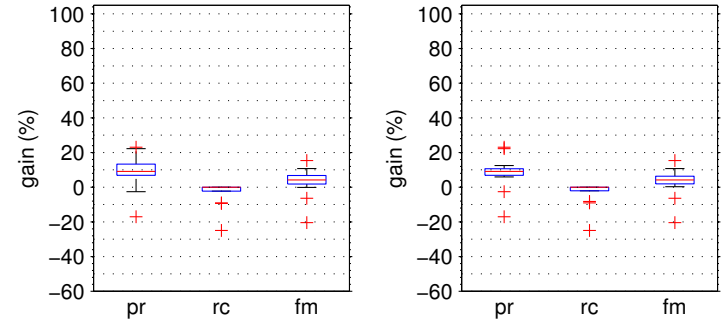
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.10: Repair effects for Ase matcher.



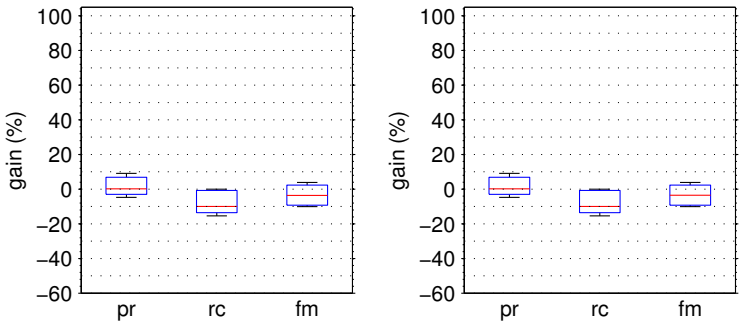
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.11: Repair effects for Autom matcher.



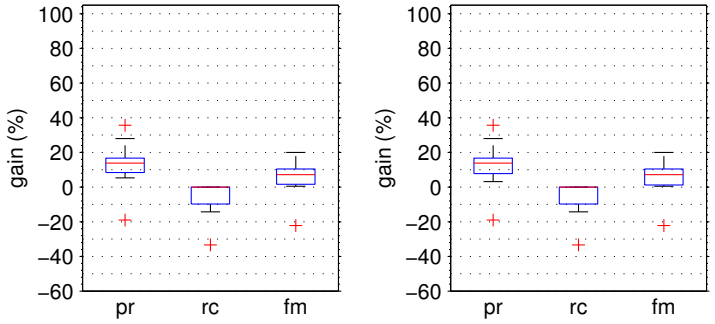
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.12: Repair effects for CIDER-CL matcher.



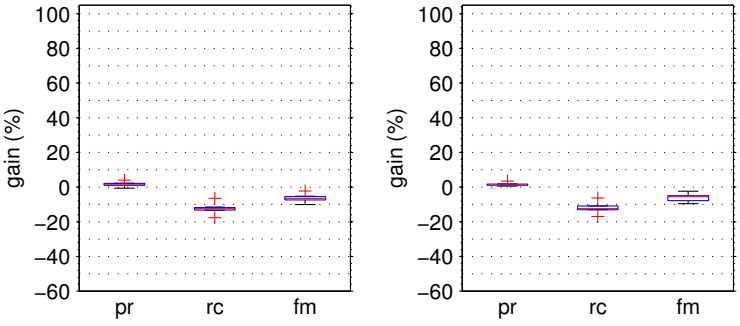
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.13: Repair effects for Codi matcher.



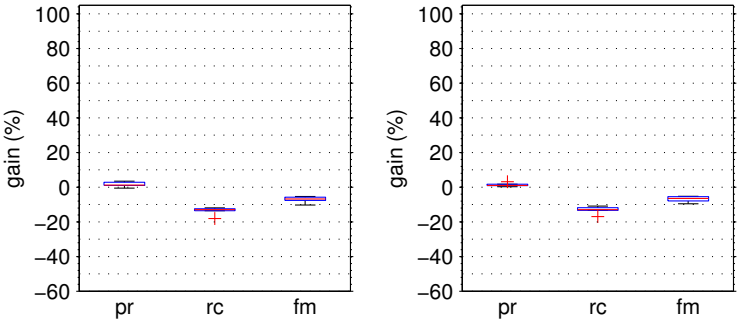
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.14: Repair effects for Cro-Matcher matcher.



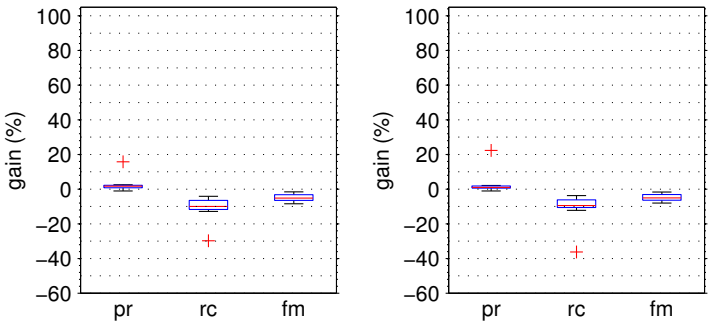
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.15: Repair effects for GommaBK matcher.



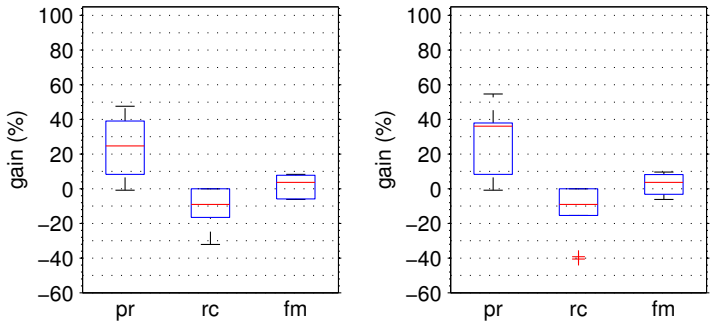
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.16: Repair effects for GommaSBK matcher.



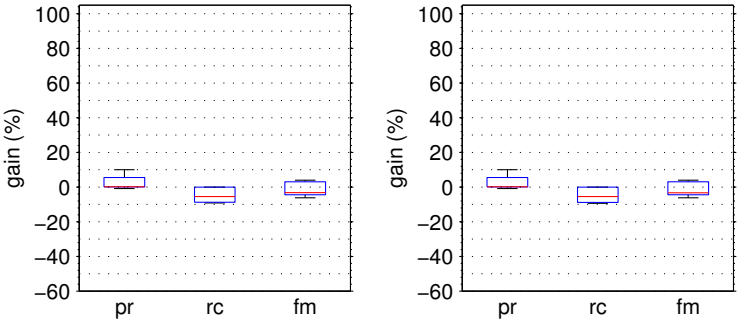
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.17: Repair effects for Gomma matcher.



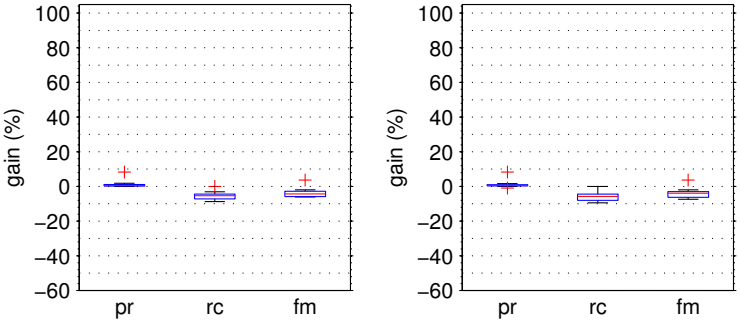
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.18: Repair effects for Hertuda matcher.



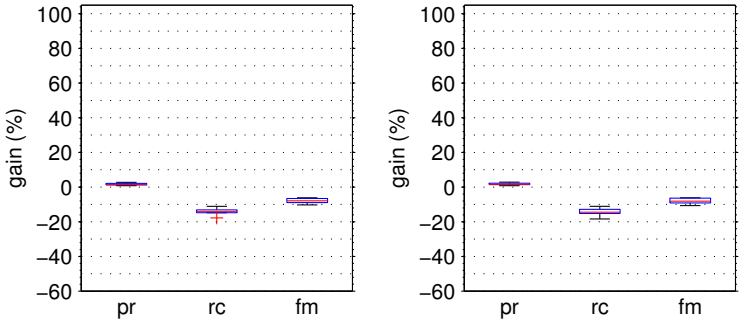
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.19: Repair effects for HotMatch matcher.



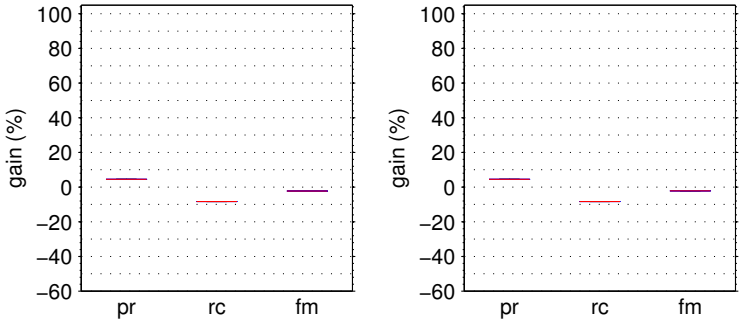
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.20: Repair effects for IAMA matcher.



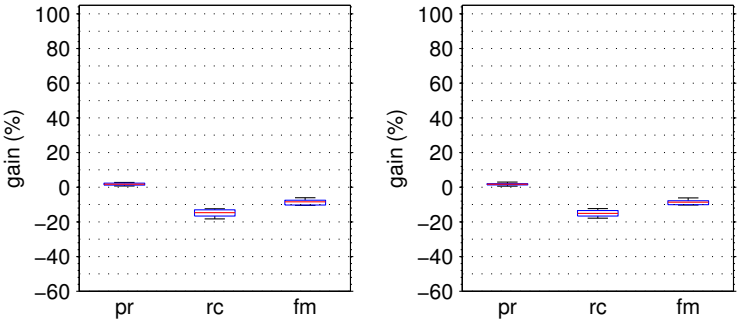
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.21: Repair effects for LogMap2Noe matcher.



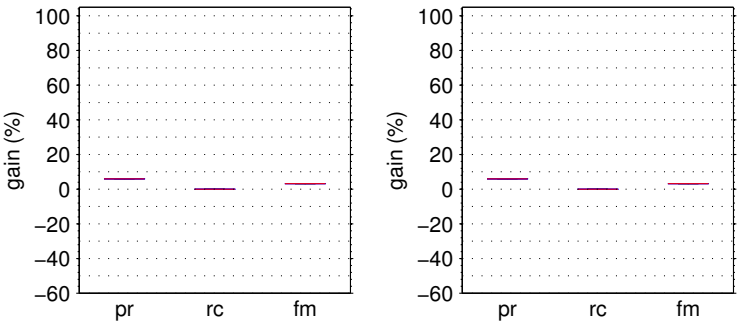
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.22: Repair effects for LogMapBio matcher.



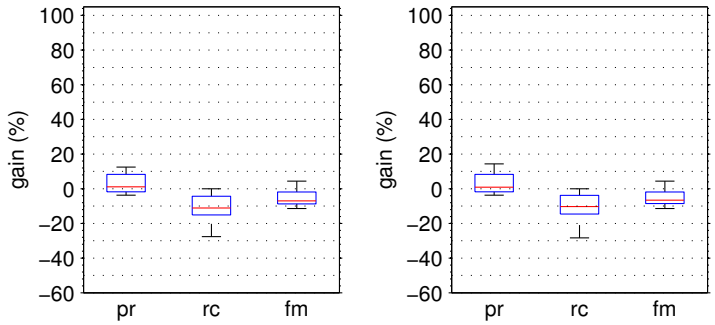
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.23: Repair effects for LogMapBK matcher.



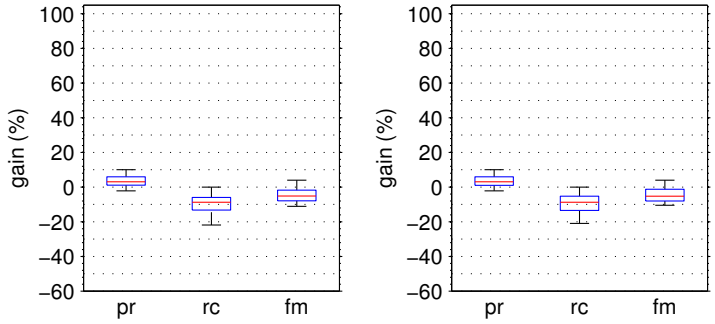
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.24: Repair effects for LogMapC matcher.



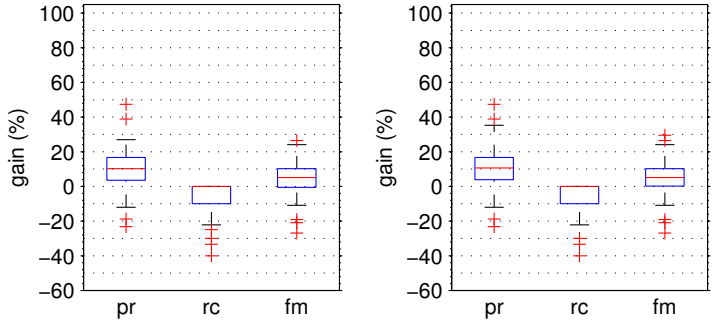
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.25: Repair effects for LogMapLt matcher.



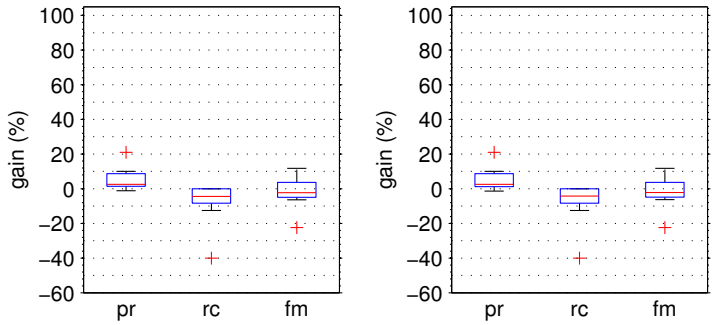
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.26: Repair effects for LogMap matcher.



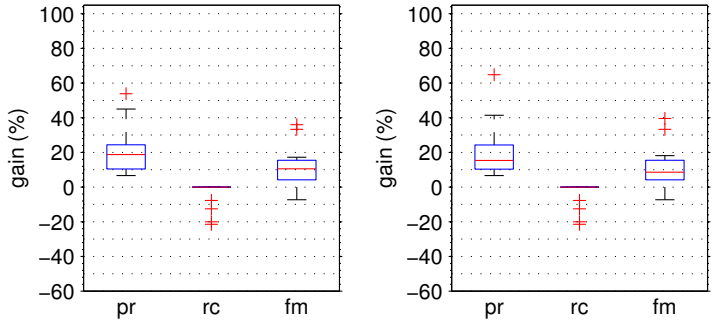
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.27: Repair effects for MaasMatch matcher.



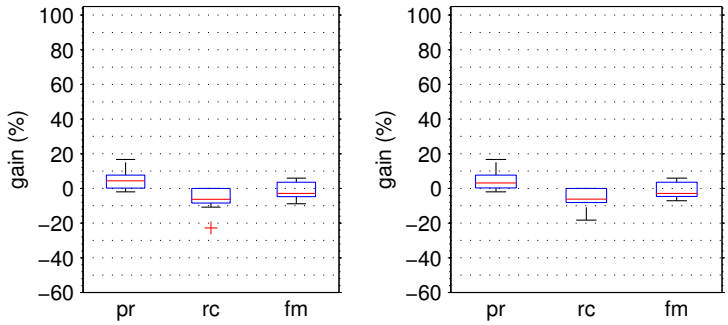
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.28: Repair effects for MapSSS matcher.



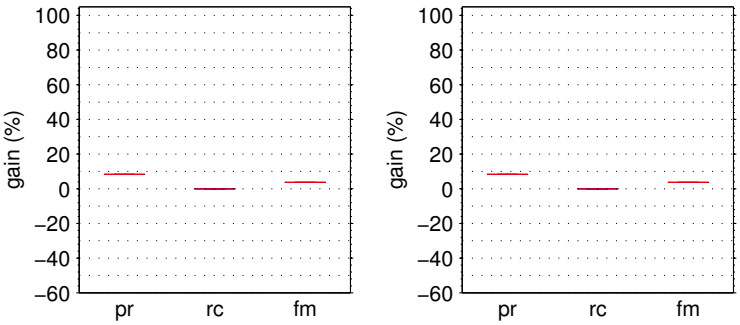
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.29: Repair effects for Medley matcher.



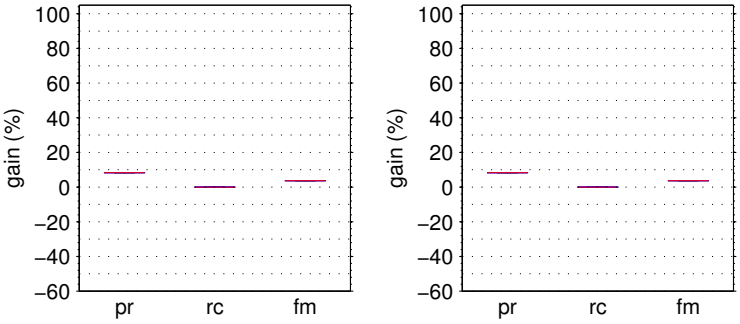
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.30: Repair effects for ODGOMS matcher.



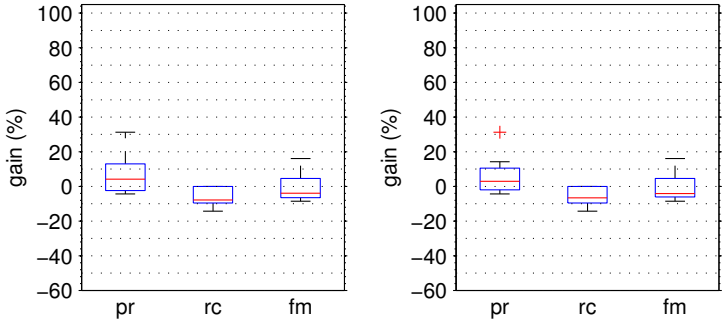
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.31: Repair effects for OMReasoner matcher.



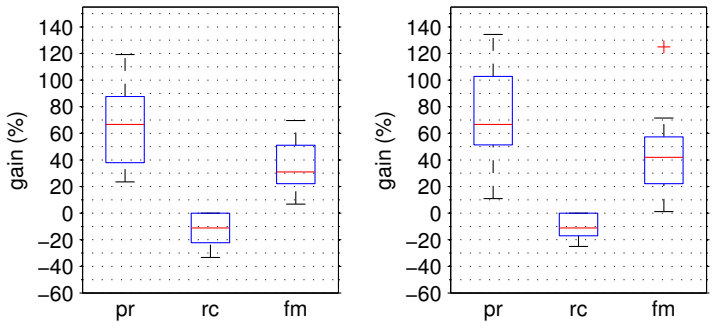
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.32: Repair effects for ontoK2 matcher.



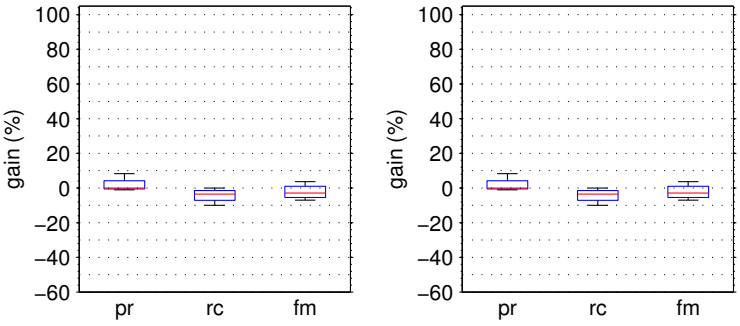
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.33: Repair effects for Optima matcher.



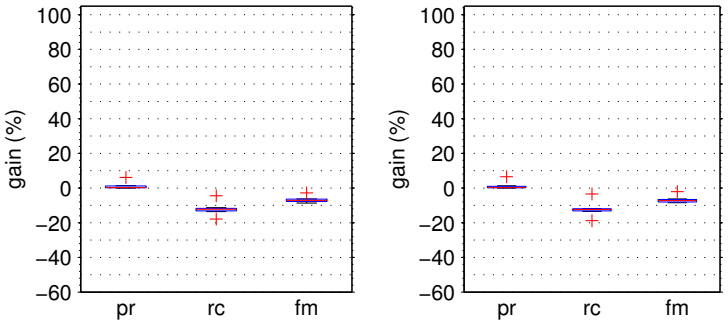
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.34: Repair effects for RIMOM matcher.



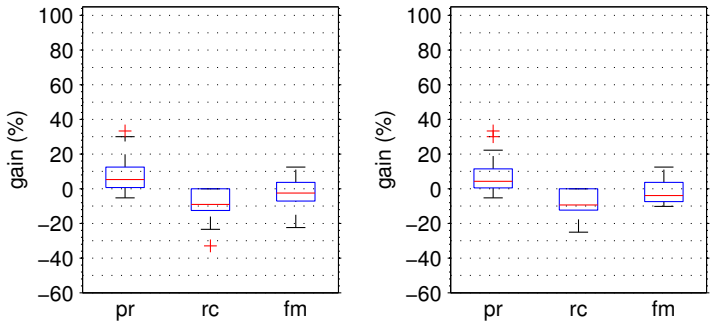
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.35: Repair effects for RSDLWB matcher.



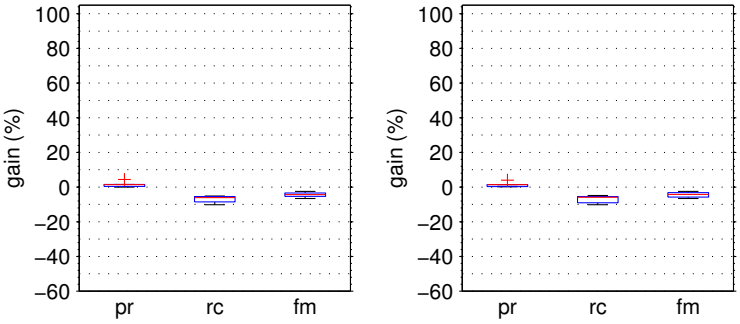
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.36: Repair effects for ServOMapL matcher.



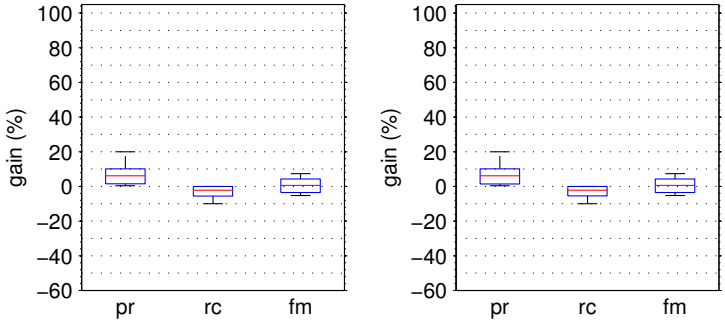
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.37: Repair effects for ServOMap matcher.



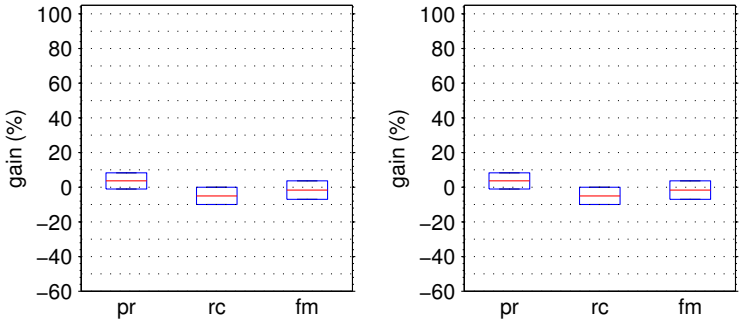
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.38: Repair effects for Sphere matcher.



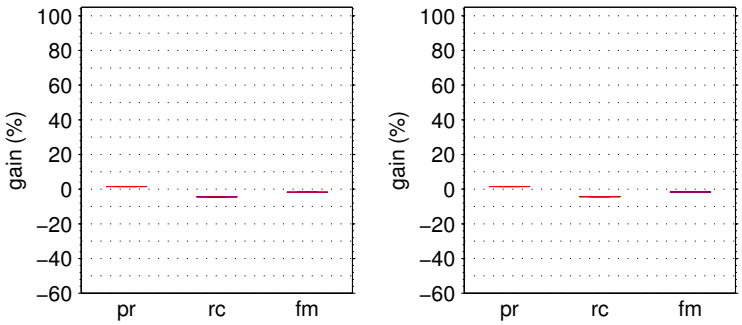
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.39: Repair effects for StringsAuto matcher.



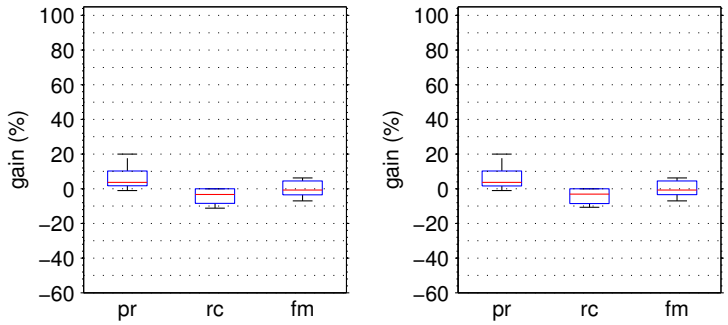
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.40: Repair effects for Synthesis matcher.



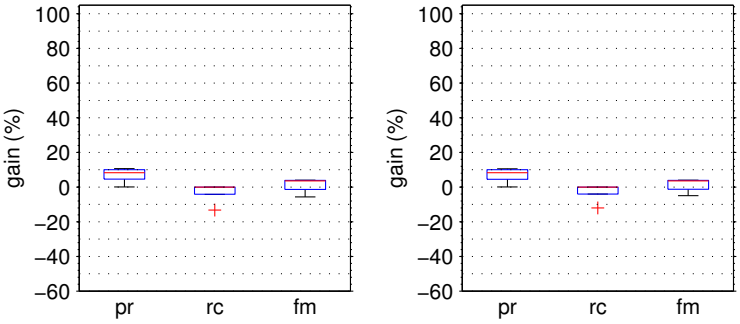
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.41: Repair effects for Toast matcher.



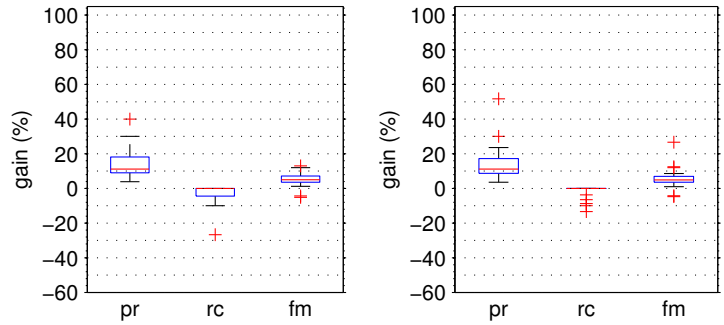
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.42: Repair effects for WeSeE matcher.



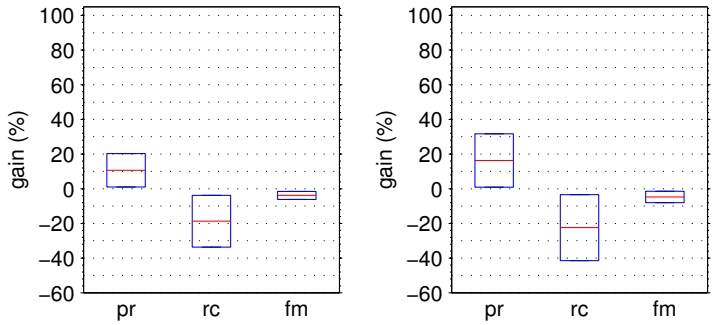
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.43: Repair effects for WMatch matcher.



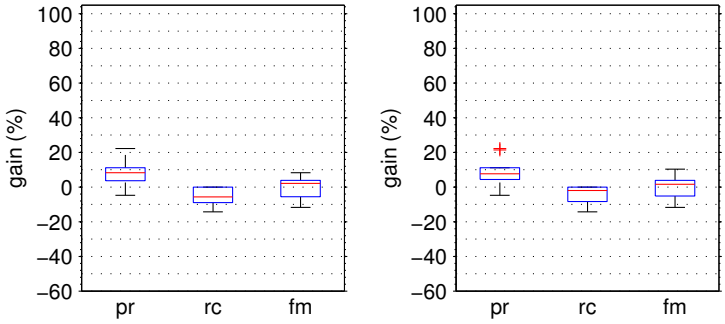
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.44: Repair effects for XMapGen matcher.



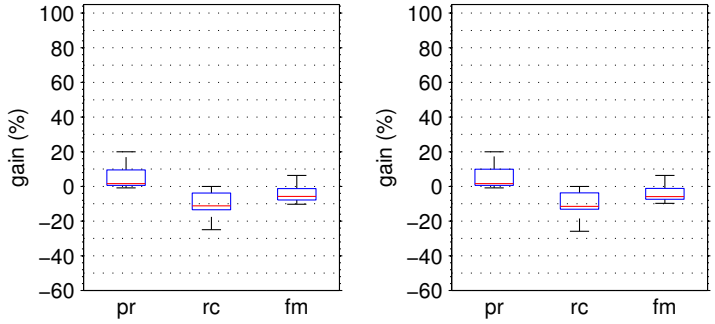
(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.45: Repair effects for XMap matcher.



(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.46: Repair effects for XMapSig matcher.



(a) Subsumption->Equivalence. (b) Equivalence->Subsumption.

Figure 3.47: Repair effects for YAM++ matcher.