

## Netlib Mathematical Software Distribution System

**Address:** None

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**Phone:** None

### Description

Netlib is a system for distribution of mathematical software by electronic mail. To get information about Netlib, mail the following one-line message to netlib@ornl.gov.

#### **send index**

For background about Netlib, see Jack J. Dongarra and Eric Grosse, "Distribution of Mathematical Software Via Electronic Mail," *CACM* (1987) Vol. 30, pp. 403-407.

The Netlib library includes the following software collections (for details on each, see the index message).

- a - approximation algorithms (almost empty, but soon to grow)
- alliant - set of programs collected from Alliant users
- apollo - set of programs collected from Apollo users
- benchmark - various benchmark programs and a summary of timings
- bihar - Bjorstad's biharmonic solver
- bmp - Brent's multiple precision package
- cheney-kincaid - programs from the text Numerical Mathematics and Computing.
- conformal - Schwarz-Christoffel codes by Trefethen, Bjorstad & Grosse
- core - machine constants, blas
- domino - communication and scheduling of multiple tasks; Univ. Maryland
- eispack - matrix eigenvalues and vectors
- elefun - Cody and Waite's tests for elementary functions
- errata - corrections to numerical books
- fishpack - separable elliptic PDEs; Swarztrauber and Sweet
- fitpack - Cline's splines under tension
- fftpack - Swarztrauber's Fourier transforms
- fmm - software from the book by Forsythe, Malcolm, and Moler
- fn - Fullerton's special functions
- gcv - Generalized Cross Validation
- go - "golden oldies," gaussq, zeroin, lowess, ...
- graphics - ray-tracing harwell - MA28 sparse linear system

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hompack - nonlinear equations by homotopy method  
 itpack - iterative linear system solution by Young and Kincaid  
 lanczos - Cullum and Willoughby's Lanczos programs  
 laso - Scott's Lanczos program for eigenvalues of sparse matrices  
 linpack - gaussian elimination, QR, SVD by Dongarra, Bunch, Moler, Stewart  
 lp - linear programming machines—short descriptions of various computers  
 microscope - Alfeld and Harris' system for discontinuity checking  
 minpack - nonlinear equations and least squares by More, Garbow, Hillstrom  
 misc - everything else  
 na-digest - archive of mailings to NA distribution list  
 napack - numerical algebra programs  
 ode - ordinary differential equations  
 odepack - ordinary differential equations from Hindmarsh  
 paranoia - Kahan's floating point test  
 pchip - hermite cubics Fritsch & Carlson  
 pltmg - Bank's multigrid code; too large for ordinary mail  
 polyhedra - Hume's database of geometric solids port—the public subset of PORT library  
 pppack - subroutines from de Boor's Practical Guide to Splines  
 quadpack - univariate quadrature by Piessens, de Donker, Kahaner  
 siam - typesetting macros for SIAM journal format  
 slatec - machine constants and error handling package from the Slatec library  
 sparse - a set of c codes for sparse systems of equations  
 sparspak - George + Liu, sparse linear algebra core  
 specfun - transportable special functions  
 toeplitz - linear systems in Toeplitz or circulant form by Garbow  
 toms - Collected Algorithms of the ACM  
 y12m - sparse linear system (Aarhus)

## Network Access

Send electronic mail to [netlib@ornl.gov](mailto:netlib@ornl.gov). Although messages will be returned by [netlibd@mcs.anl.gov](mailto:netlibd@mcs.anl.gov), please do not mail to that address.

Additional copies of the server run at:

[netlib@research.att.com](mailto:netlib@research.att.com) in New Jersey  
[netlib@nac.no](mailto:netlib@nac.no) in Oslo, Norway  
[netlib@draci.cs.uow.edu.au](mailto:netlib@draci.cs.uow.edu.au) in Australia

## Who Can Use the Catalog

Anyone can use any of the servers.

## Miscellaneous Information

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