

Refocusing Images Captured from a Stereoscopic Camera

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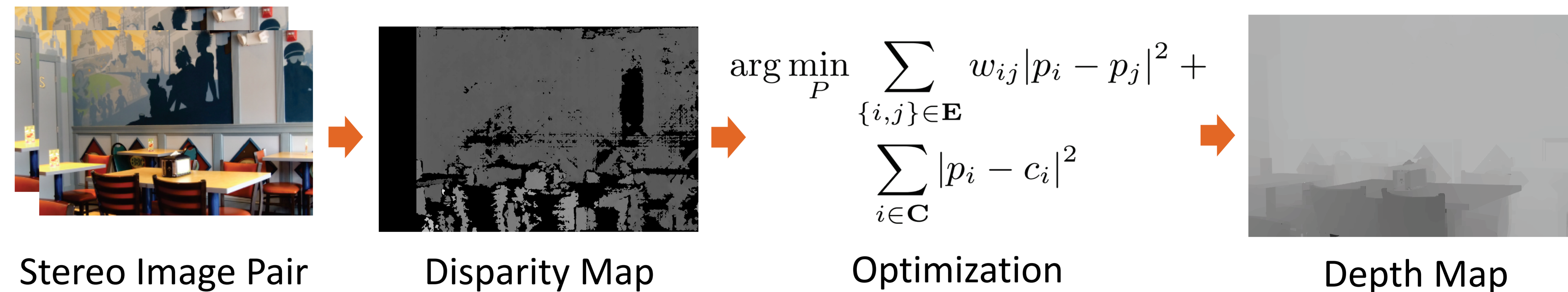
Motivation

- Image refocusing
- Previous depth acquisition methods
 - light-field camera: *low resolution*
 - coded aperture: *darker image*
 - Kinect: *indoor use only*
- Depth acquisition using stereoscopic camera
 - high resolution
 - lighter image
 - easy-to-use
 - no modification to hardwares

Key Observations

- Sign of disparity shows whether the pixel is in front of or in rear of the focus plane.
- Magnitude of disparity shows the distance to the focus plane.
- Most consumer cameras carry small lenses and capture nearly all focused images.
 - Deblurring is not necessary.

Proposed System



Results

