



# iccp 10

International Conference on Computational Photography

March 29-30, 2010

MIT, Cambridge, MA

## Program Chairs

Kyros Kutulakos, U. Toronto

Rafael Piestun, U. Colorado

Ramesh Raskar, MIT

## Finance Chair

Yoav Schechner, Technion

## Local Arrangements Chair

Sylvain Paris, Adobe

## Online Activities Chair

Neel Joshi, Microsoft

## Program Committee

### (Vision / Graphics)

A. Agrawal, MERL

M. Cohen, Microsoft

A. Efros, CMU

P. Favaro, Heriot Watt U.

S. Hiura, U. Osaka

H. Lensch, MPI Informatik

A. Levin, Weizmann Inst.

M. Levoy, Stanford

S. Narasimhan, CMU

S. Nayar, Columbia U.

S. Paris, Adobe

### (Optics)

D. Brady, Duke U.

J. Fienup, U. Rochester

S. Fainman, UCSD

J. Mait, US ARL

C. Preza, U. Memphis

The field of Computational Photography seeks to create new photographic functionalities and experiences that go beyond what is possible with traditional cameras and image processing tools. Submissions on the following topics are encouraged:

**Computational Cameras:** The use of optical coding followed by computational decoding to produce new or enhanced images and videos. Examples include catadioptric, coded aperture, integral/plenoptic, coded exposure, lensless, assorted pixel, compressive, holographic and depth imaging. Novel computational image detectors that facilitate the creation of new images are also included.

**Multiple Images and Camera Arrays:** The use of multiple images captured sequentially or simultaneously followed by processing to produce new or enhanced images. Examples include mosaicing, creation of collages and montages, refocusing, and light field rendering. Also included are the use of multiple images to achieve high dynamic range, extended depth of field, super-resolution, denoising, multispectral imaging and polarization imaging.

**Computational Illumination:** The use of programmable light sources to capture images followed by processing to produce new or enhanced images. Examples include structured light for depth/normal estimation, image based relighting, flash/no-flash methods for image enhancements, separation of reflection components, detection of material properties and light transport measurement and manipulation.

**Advanced Image and Video Processing:** The use of innovative computational methods to break the fundamental limits of traditional image processing and produce new or enhanced images. Examples include the use of image priors for enhancement, image matting, image filling, and view interpolation.

**Scientific Photography and Videography:** The use of imaging systems to gather quantitative information about physical systems and processes as diverse as individual cells and galaxies. Examples include application in microscopy, biomedical imaging, remote sensing and astronomy.

## Important Dates

Submission of full paper	November 2, 2009
Notification of acceptance	February 2, 2010
Conference	March 29-30, 2010

Submissions must present original unpublished work. For detailed submission instructions see the conference website.

Conference website: <http://cameraculture.media.mit.edu/iccp10>