



INSTITUTE FOR MATHEMATICS  
AND ITS APPLICATIONS

IMA  
Special  
Workshop

OCTOBER 14-18, 2019

# Computational Imaging

This workshop will serve as a venue for presenting and discussing recent advances and trends in the growing field of computational imaging, where computation is a major component of the imaging system. Research on all aspects of the computational imaging pipeline from data acquisition (including non-traditional sensing methods) to system modeling and optimization to image reconstruction, processing, and analytics will be discussed, with talks addressing theory, algorithms and mathematical techniques, and computational hardware approaches for imaging problems and applications including MRI, tomography, ultrasound, microscopy, optics, computational photography, radar, lidar, astronomical imaging, hybrid imaging modalities, and novel and extreme imaging systems. The expanding role of computational imaging in industrial imaging applications will also be explored.

## ORGANIZERS

**Saiprasad Ravishankar**, Michigan State University

**Stanley H. Chan**, Purdue University

**Jeff Fessler**, University of Michigan

**Justin Haldar**, University of Southern California

**Ulugbek Kamilov**, Washington University

**Rebecca Willett**, University of Chicago

**Brendt Wohlberg**, Los Alamos National Laboratory

## SPEAKERS

**Charles A. Bouman**, Purdue University

**Katie Bouman**, California Institute of Technology

**Yoram Bresler**, University of Illinois at Urbana-Champaign

**Mujdat Cetin**, University of Rochester

**Mariya Doneva**, Philips Research Laboratory

**Mario A.T. Figueiredo**, Instituto Superior Tecnico

**Alessandro Foi**, Tampere University of Technology

**Orazio Gallo**, NVIDIA Corporation

**Sergio Goma**, QUALCOMM

**Vivek K. Goyal**, Boston University

**Keigo Hiraikawa**, University of Dayton

**Mathews Jacob**, The University of Iowa

**W. Clem Karl**, Boston University

**Florian Knoll**, NYU Langone Medical Center

**Youzuo Lin**, Los Alamos National Laboratory

**Nicole Seiberlich**, University of Michigan

**Joseph W. Stayman**, Johns Hopkins University

**Ashok Veeraraghavan**, Rice University

**Laura Waller**, University of California, Berkeley

**Ge Wang**, Rensselaer Polytechnic Institute

**Ming Yan**, Michigan State University

**Jong Chul Ye**, Korea Advanced Institute of Science and Technology (KAIST)

**Wotao Yin**, University of California, Los Angeles

**Zhizhen Zhao**, University of Illinois at Urbana-Champaign

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