

OSA Controlled Light Propagation through Complex Media Incubator

5-7 March 2014

OSA Headquarters • 2010 Massachusetts Ave. NW • Washington, DC, USA

HOSTED BY:

Thomas Bifano, Boston University, United States; **Sylvain Gigan**, Institut Langevin, France
Jerome Mertz, Boston University, United States; **Allard Mosk**, University of Twente, Netherlands

AGENDA

Wednesday, 5 March 2014

18:00 Welcome Dinner
Ezme, 2016 P Street, NW

Thursday, 6 March 2014

8:00 Breakfast
OSA Headquarters, 2010 Massachusetts, Ave., NW

8:45 Welcome & Opening Remarks
Elizabeth Rogan, Chief Executive Officer, OSA, United States
Thomas Bifano, Boston University, United States
Jerome Mertz, Boston University, United States

9:00 Controlling Light Propagation In Vivo with Adaptive Optics
Na Ji, Howard Hughes Medical Institute, United States

9:30 Ultrasound-Guided Optical Wavefront Control for Focusing in Scattering Media
Puxiang Lai, Washington University in St. Louis, United States

10:00 Coffee Break

10:30 High Resolution Imaging through Scattering Media with Photo Acoustic Feedback
Rafael Piestun, University of Colorado, Boulder, United States

11:00 Wavefront Control for Deep Tissue Imaging
Meng Cui, Howard Hughes Medical Institute, United States

11:30 Deep-tissue Fluorescence Imaging with Time-reversed Light
Benjamin Judkewitz, California Institute of Technology, United States

AGENDA Continued

- 12:00 Lunch
OSA Headquarters, 2010 Massachusetts, Ave., NW
- 13:00 Non-invasive Real-time Imaging through Opaque Scattering Layers and Around Corners
Ori Katz, Institut Langevin, ESPCI Paris Tech, France
- 13:30 Task-oriented Sensing with Complex Optical Wavefronts
Aristide Dogariu, University of Central Florida, United States
- 14:00 Wide-field Imaging and Energy Enhancement through Turbid Media
Zahid Yaqoob, Massachusetts Institute of Technology, United States
- 14:30 Coffee break
- 15:00 Coherent Control of Total Transmission and Absorption of Light in Disordered Media
Hui Cao, Yale University, United States
- 15:30 Transmission Eigenchannels and the Densities of States of Random Media
Azriel Genack, CUNY Queens College, United States
- 16:00 Wavefront Shaping for Adaptive Quantum Optics
Pepijn Pinkse, Mesa+ Institute for Nanotechnology, Netherlands
- 16:30 Group Discussion
- 17:30 Poster Session
Yaron Bromberg, Yale University, United States
Thomas Chaigne, Institut Langevin, ESPCI ParisTech, France
Lorenzo Pattelli, LENS European Laboratory for Non-linear Spectroscopy, Italy
Kevin Takasaki, Princeton University, United States
- 18:30 Dinner
Sette Osteria, 1666 Connecticut Ave NW

Friday, 7 March 2014

- 8:30 Breakfast
OSA Headquarters, 2010 Massachusetts, Ave., NW
- 9:00 Pushing the Limits of Nonlinear Microscopy
Chris Xu, Cornell University, United States
- 9:30 Computational Illumination and 3D Phase Imaging
Lei Tian, University of California Berkeley, United States
- 10:00 Nonlinear and Phase-Space Filtering of Scattered Images
Jason Fleischer, Princeton University, United States
- 10:30 Coffee Break
- 11:00 National Institute of Biomedical Imaging and Bioengineering Perspective
Richard Conroy, National Institutes of Health, United States
- 11:15 Naval Research Laboratory Perspective
Abbie Watnik, Naval Research Laboratory, United States
- 11:30 Challenges and Outlook
Jerome Mertz, Boston University, United States
- 11:45 Final Discussion, Wrap-up and Next Steps
Thomas Bifano and Jerome Mertz, Boston University, United States
- 12:15 Lunch
OSA Headquarters, 2010 Massachusetts, Ave., NW