

# OSA Small Eyes & Smart Minds Incubator

4-6 October 2017  
Washington, DC USA

HOSTED BY:  
Rama Chellappa, University of Maryland, United States  
Francisco Imai, Apple, Inc., United States  
Ashok Veeraraghavan, Rice University, United States

## AGENDA

### Wednesday 4 October 2017

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Afternoon            Arrival/Hotel Check-in  
                                 Residence Inn Dupont Circle, 2120 P Street, NW

18:00                Welcome Dinner  
                                 Ezmè, 2016 P St NW

### Thursday 5 October 2017

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

8:30                Welcome  
                                 *Elizabeth Rogan, CEO, The Optical Society*  
                                 *Suzanne E. Grinnan, Executive Director, Society for Imaging Science and Technology*

8:45                Program Overview and Goals  
                                 *Hosts*

### SESSION: SENSORS & SYSTEMS

9:00                Ultra-compact, Flat, Lenseless Microscopes  
                                 *Jacob Robinson, Rice University, United States*

9:30                Quanta Image Sensors  
                                 *Eric Fossum, Dartmouth University, United States*

## Thursday 5 October 2017, continued

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- 10:00 Coffee Break
- 10:30 Plenoptic Sensors for Adaptive Optics and Imaging through Distorting Turbulence  
*Chris Davis, University of Maryland, United States*
- 11:00 Giving AR/VR Eyes and Brain  
*Jingyi Yu, University of Delaware, United States*
- 11:30 Sensors & Systems Panel Discussion  
*Moderator: Ashok Veeraraghavan, Rice University, United States*
- 12:30 Lunch, provided
- 1:30 Small Eyes Keynote  
*David Brady, Duke University, United States*

### SESSION: APPLICATIONS – HEALTH, AUTOMOTIVE, VR, MOBILE & SCIENTIFIC

- 2:30 Computational Near-eye Displays with Focus Cues  
*Gordon Wetzstein, Stanford University, United States*
- 3:00 Multi-mission Spatiotemporal EO/IR Sensing & Perception  
*Sanjeev Agarwal, Night Vision & Electronic Sensors Directorate, United States*
- 3:30 Coffee Break
- 4:00 Computational Optical Imaging at the Nanoscale & Through Scattering Materials  
*Raphael Piestun, University of Colorado, Boulder, United States*
- 4:30 Wide-FOV Sensing & Optical Processing for Small Vision Applications  
*Sanjeev Koppal, University of Florida, United States*
- 5:00 Exploiting the Physical Limits and Information Limits of Single-Shot 3D Sensing  
*Florian Willomitzer, Northwestern University, United States*
- 5:30 Applications Session Panel Discussion  
*Moderator: Francisco Imai, Apple, Inc. United States*
- 6:30 Dinner  
Sette Osteria, 1666 Connecticut Ave, NW

## Friday 6 October 2017

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

8:30 Smart Minds Keynote  
*Rajiv Laroia, Light, United States*

### SESSION: TOWARDS SMART MINDS

9:30 Dynamic Mode Decomposition for Background Modeling of Streaming Video  
*Nathan Kutz, University of Washington, United States*

10:00 Computational Spectral Imaging  
*Aswin Sankaranarayanan, Carnegie Mellon University, United States*

10:30 Coffee Break

10:50 Mobile Computational Imaging  
*Alex Drimbarean, FotoNation, Ireland*

11:20 Quantized Neural Networks for Hardware Implementation: A Deeper Understanding  
*Tom Goldstein, University of Maryland, United States*

11:50 Towards Smart Minds Panel Discussion  
*Moderator: Rama Chellappa, University of Maryland, United States*

12:50 Lunch and Networking Session

2:00 Adjourn