



# INDUSTRIAL AFFILIATES WORKSHOP

UNIVERSITY OF ARIZONA COLLEGE OF OPTICAL SCIENCES

## Tuesday, March 28, 2017

### Presentation Agenda

#### PROGRAM TIME

#### EVENT

#### LOCATION

7:45 a.m.

**Welcome Breakfast**

8th Floor Breakout Area

8:45 a.m.

**Group Photo**

3rd Floor Lobby

9:00 a.m.

**Workshop Welcome**

Meinel 307

9:15 a.m.

**Keynote** - Russell Chipman, Professor of Optical Sciences

Meinel 307

“Exoplanet Coronagraphs and Polarimeters: New Optical Design Challenges”

10:00 a.m.

**Break**

10:30 a.m.

**Research Presentations**

Meinel 307

10:30 - 11:00 a.m.

Euan McLeod, Assistant Professor of Optical Sciences

Soft nano-photonic systems: Nanolenses for on-chip holographic imaging of nanoparticles and viruses

11:00 - 11:20 a.m.

Alexander Lin, Ph.D. student (Advised by: Matthew Kupinski)

“Using the Wiener Estimator to Determine Optimal Imaging Parameters in a Synthetic - Collimator SPECT System Used for Small Animal Imaging”

11:25 - 11:35 a.m.

Adriana Stohn, B.S. student (Advised by: Russell Chipman)

“Mueller Matrix Measurements of Hands in the Near-IR for Feature Detection”

11:35 - 12:00 p.m.

Lisa Li, Ph.D. student (Advised by: Russell Chipman)

“Segmentation Methods for Mueller Matrix Images”

12:15 p.m.

**Lunch**

Dan Dunlap Stadium Club/Football Stadium

1:30 p.m.

**Industrial Affiliate Presentation**

Meinel 307

1:30 - 2:00 p.m.

Jessica DeGroote Nelson, Optimax Systems

“Extreme Freeforms: Improving imaging performance with ultra-stable monolithic freeforms”

2:00 p.m.

**Research Presentations Continued**

Meinel 307

2:00 - 2:20 p.m.

Caleb Baker, Ph.D. student (Advised by: Jerome Moloney)

“Design and Applications for Ultrafast and 2-Color Optically Pumped Semiconductor Lasers”

2:20 - 2:40 p.m.

Isela D. Howlett, Ph.D. student (Advised by: Raymond Kostuk)

“Wavelength Coded Volume Holographic Imaging Endoscope Utilizing Axial Chromatic Dispersion”





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**2:40 p.m.**

**Research Presentations Continued**

**Meinel 307**

2:40 - 3:00 p.m.

R. John Koschel, Associate Dean of Academics, Professor of Optical Sciences  
"Freeform Optics in the Fast Lane"

**3:00 p.m.**

**Break**

**3rd Floor Lobby**

**3:30 p.m.**

**Research Presentations**

**Meinel 307**

3:30 - 3:45 p.m.

Benjamin Cromey, Ph.D. student (Advised by: Khanh Kieu)  
"All Reflective Multiphoton Microscope"

3:45 - 4:00 p.m.

Brandon Hellman, Ph.D. student (Advised by Yuzuru Takashima)  
"3D Visualization of Optical Ray Aberration and Its Broadcasting to Smartphones by Ray Aberration Generator"

**4:00 p.m.**

**Senior Capstone Presentations**

**Meinel 307**

4:00 - 4:15 p.m.

Adam Abdelatif & Christopher Nguyen, B.S. students  
"Tissue Detection and Reagent Dispense System"

**4:30 p.m.**

**Review of Presentations**

**Meinel 307**

**5:00 p.m.**

**Lab Tours, Mixer, and Student Poster Presentations**

**3rd Floor Lobby**

Multi-scale Optical and Photonic System Laboratory **Meinel 663**  
Host Student - Brandon Hellman (PI: Yuzuru Takashima) 5:00 - 6:00 p.m.

Richard F. Caris Mirror Lab, Steward Observatory **Meet in 3rd Floor Lobby**  
Host - Professor Dae Wook Kim (ADVANCED REGISTRATIONS ONLY)

**6:00 p.m.**

**Industry Dinner**

**3rd Floor Outdoor Patio**

**Guest Speaker**—Peter F. Hallett, Director of Marketing and Industry Relations, SPIE  
"Technology trends in optics and photonics research"





# INDUSTRIAL AFFILIATES WORKSHOP

UNIVERSITY OF ARIZONA COLLEGE OF OPTICAL SCIENCES

## Wednesday, March 29, 2017

### Open Labs and Student Interviews

**PROGRAM TIME**

**EVENT**

**LOCATION**

8:00 a.m.

**Continental Breakfast**

3rd Floor Lobby

9:00 a.m.

**Open Labs**

Ultrafast Fiber Lasers & Nonlinear Optics : Multiphoton & Terahertz Lab  
Host Student - Benjamin Cromey (PI: Khanh Kieu) 9:00 - 11:00 a.m.

**Meinel 662**

High Power Vecsel Lab  
Host Student– Caleb Baker (PI: Jerome Moloney) 9:00 - 11:00 a.m.

**Meinel 558**

Polarization Laboratory  
Host Student– Brian Daugherty (PI: Russell Chipman) 9:00 - 11:00 a.m.

**Meinel 765**

Photonic Integrated Circuits Test and Evaluation Lab  
Host Student– Erfan Fard (PI: Robert Norwood) 9:00 - 11:00 a.m.

**Meinel 207**

Fluorescence spectroscopy and imaging  
Hosts– Dongli Xu and Leilei Peng (PI: Leilei Peng) 10:00 - 12:00 p.m.

**Meinel 616**

9:00 a.m.

**Interactive Overview of Undergraduate and Graduate Programs**

John Koshel, Associate Dean of Academics  
Melissa Ayala, Senior Academic Advisor - Undergraduate Program  
Mark Rodriguez, Senior Academic Advisor - Graduate Program

10:00 a.m.

**Refreshment Provided**

3rd Floor Lobby

10:00 a.m.

**Continued: Open Labs and Time with Faculty**

Photonics System Laboratory  
Hosts – Isela Howlett (PI) Raymond Kostuk 10:00 - 12:00 p.m.

**ECE 249**

Polarization Laboratory  
Host Student– Lisa Li (PI: Russell Chipman) 10:00 - 11:00 a.m.

**Meinel 767**

12:00 p.m.

**“Swing into Spring” Lunch with Students**

3rd Floor Lobby

End of Formal Workshop—Student interviews continue until end of day.

