

Topics

- IR Detectors and New Material Development
- IR Sources, Lasers, Filters, Optics, MEMS
- IR Instrument Sub-Systems: Source-Detector, Cooling, Software, Associated Electronics, Production Methods
- IR Spectroscopy, Sensing, and Commercial Applications

Schedule

- 11/7: 5:00 - 7:00 pm, Meet and Greet Cocktail Reception, rooftop patio, Marriott Residence Inn
- 11/8: 8:30 registration, 9:00 am - 4:30 pm, The Carson Ballroom, The Old Main, ASU Campus
- 11/8: 6:00 - 9:00 pm, Drinks and Dinner, Gordon Biersch, Tempe. Optional brewery tour
- 11/9: 9:00 am - 3:00 pm, The Carson Ballroom, The Old Main, ASU Campus

Tuesday, November 7

Residence Inn Rooftop Entertainment Area

5:00-7:00

Meet and Greet Reception and Early Registration

Wednesday, November 8

Carson Ballroom, The Old Main, ASU Campus

8:30-9:00

Coffee and Registration

9:00-9:10

Opening statement and welcoming remarks

9:10-10:05

Session A: Detectors and New Material Development

Aidan Brooks

LIGO Labs CalTech

Interferometric Gravitational Wave Requirements

Raphael Mueller

Fraunhofer IAD Freiberg

Type II Superlattice IR Detectors

Alexander Soibel

NASA Jet Propulsion Laboratory

R&D of optoelectronics devices: IR detectors/focal plane arrays

10:05-10:25

Breakout Session A

10:25-11:20

Session B: Detectors and New Material Development

Prof. Maria Tamargo

The City College of New York
II-VI Quantum Cascade Lasers and Detectors

Prof. Raphael Tsu

University of North Carolina
New Device Concepts for Type II Superlattices

Michael Wanke

Sandia National Laboratories
Mid-infrared and terahertz transceivers

11:20-11:40

Breakout Session B

11:40-12:15

Session C: Detectors and New Material Development

Shane Johnson

Arizona State University
MBE grown InAsSbBi for MIR LWIR detector development

Elizabeth Steenbergen

Air Force Research Lab
InAs/InAsSb type-II superlattices photodetector applications

Joe Kunsch

Laser Components Germany
Driving forces behind new MIR detector research

12:15-1:00

Breakout Session C and Lunch: Sandwiches/Salads



1:00-1:55

Session D: Spectroscopy, Sensing, Applications

Prof. Mark Zondlo

Princeton University
Mid-IR Open Path Systems

Prof. Nilton Renno

University of Michigan
Intelligent Vision Systems- Advanced Icing Detection

Prof. Fred Moshary

City College of New York
Remote sensing of gases and particles

1:55-2:15

Breakout Session D

2:15-3:10

Session E: Spectroscopy and Sensing

Prof. Frank Tittel

Rice University
Advances in Laser based Trace Gas Sensor Technologies

Chip Marshall

Redshift BioAnalytics
Tunable IR lasers for biophysical characterization of protein

Mark Phillips

Pacific Northwest National Lab
Standoff chemical plume detection-swept-ECQCL spectroscopy

3:10-3:30

Breakout Session E



3:30-4:00	Session F: Commercial Applications Shankar Baliga General Monitors Super toughened glasses for hazardous locations
4:00-4:20	Breakout Session F
4:30-5:30	ASU Labs Open House Nanofab and Center for Photonics Innovation
6:00-9:00	Dinner at Gordon Biersch Downtown Tempe
Thursday, November 9	Carson Ballroom, The Old Main, ASU Campus
8:45-9:00	Coffee
9:00-9:55	Session G: Sources, Lasers, Filters, Optics, MEMs Prof. Claire Gmachl Princeton University Quantum Cascade Lasers Antoine Muller Alpes Lasers Commercial QCLs Prof. Yu Yao Arizona State University Integrated mid-IR Photonics
9:55-10:15	Breakout Session G



10:15-11:10

Session H: Sources, Lasers, Filters, Optics, MEMs

Jerry Meyer

Naval Research Lab

Interband Cascade Lasers and LEDs for Spectroscopy

Kevin Lascola

Thorlabs Quantum Electronics

Fiber Coupled Interband Cascade Lasers

Adam Fleisher

NIST

MIR Frequency Combs

11:0-11:30

Breakout Session H

11:30-12:00

Session I: Sources, Lasers, Filters, Optics, MEMs

Garrett Cole

Crystalline Mirrors Solutions

Ultra low loss MIR interference coatings

Jason Palidwar

Iridian

Theory and applications of Multi Zone IR Filter Arrays

Suleyman Turgut

Luminit

IR Holographic Optics

12:00-12:45

Breakout Session I and Lunch: Barbeque Buffet



12:45-1:30

Session J: Optical Fibers and Detectors

Jason Kriesel

Opto-Knowledge Systems

Recent Advances in Hollow Mid-infrared Fiber Optics

Francois Chenard

IRFlex

Latest advances in mid-infrared optical fibers and devices

Sarath Gunapala

NASA Jet Propulsion Laboratory

Focal Plane Arrays

1:30-1:50

Breakout Session J

1:50-2:20

Session K: Detector Developments

Dariusz Wojnowski

VIGO Systems

Recent IR detector developments, 3-16 microns

Patrick Merken

Xenics

2048 element InGaAs arrays with 400 kHz line rate

2:20-2:35

Breakout Session K



2:35-3:00

Panel Discussion: Looking to the future

Davorin Babic, Director of R&D

IR Emitter choices: compare and contrast

Dragan Grubisic, GM IR Detector Business

Using research to advance InGaAs array performance

Justin Jensen, Lead R&D Engineer Pyroelectrics

Differential Pyroelectric Detector Performance Data

Larry Johnson, Lead Salt Detector Specialist

Next generation PbSe research- The State of the Art

3:00

Closing Statements and Poster Session Awards