



The 2026 US Workshop on II VI and Infrared Materials

September 14 – 17, 2026
Embassy Suites, Monterey, CA, US

MONDAY, SEPTEMBER 14, 2026

Registration

4:00 PM - 6:30 PM / Ballroom Pre-Convene

Tutorial

5:00 PM - 6:00 PM / Laguna Grande AB

Title TBD

Author TBD

TUESDAY, SEPTEMBER 15, 2026

Registration

7:30 AM - 6:00 PM / Ballroom Pre-Convene

Continental Breakfast

7:30 AM - 9:30 AM / Atrium

Welcoming Remarks

8:30 AM - 9:00 AM / Laguna Grande AB

Plenary Session

9:00 AM - 9:40 AM / Laguna Grande AB

P.1: Title TBD

Author TBD

Session 1: Industrial Overview I

9:40 AM - 10:20 AM / Laguna Grande AB

Chair: Fikri Aqariden, DRS Electro-Optical & Infrared Systems (EOIS)

1.1: **Invited Paper:** Teledyne's Pathway from HgCdTe Prototyping to Production in a Statistics-Challenged Environment (9:40 AM)

Peter Dreiske, Teledyne Space Imaging, Camarillo, CA, US

BREAK (10:20 AM)

Session 2: Heteroepitaxy

10:40 AM - 12:00 PM / Laguna Grande AB

Chair: Fikri Aqariden, DRS Electro-Optical & Infrared Systems (EOIS)

2.1: **Invited Paper:** Long Wavelength Luminescence from Heteroepitaxial PbSnSe Alloys on GaAs (10:40 AM)

Kunal Mukherjee, Stanford University, Stanford, CA, US

2.2: **Reciprocal Space Mapping of tower-etched HgCdTe/CdZnTe (11:20 AM)**

Randolph Jacobs, U. S. Army DEVCOM C5ISR Center, Fort Belvoir, VA, US

2.3: **Vertical Liquid Hg Rich Melt HgCdTe LPE from LWIR to SWIR (11:40 AM)**

Mauro Vilela, RTX, Gloeta, CA, US

LUNCH (12:00 PM)

Session 3: Avalanche Photodiodes

2:00 PM - 5:00 PM / Laguna Grande AB

Chair: Pradip Mitra, Leonardo DRS, Electro-Optical and Infrared Systems (EOIS)

3.1: **Invited Paper:** Linear-Mode Photon-Counting Detectors at Leonardo DRS (2:00 PM)

Patrick Anderson, Leonardo DRS – EOIS, Dallas, TX, US

3.2: **Invited Paper:** Linear and Geiger Mode Digital Alloy Avalanche Photodiodes (2:40 PM)

Seth Bank, The University of Texas at Austin, Austin, TX, US

BREAK (3:20 PM)

Session 3: Avalanche Photodiodes (cont.)

2:00 PM - 5:00 PM / Laguna Grande AB

Chair: Pradip Mitra, Leonardo DRS, Electro-Optical and Infrared Systems (EOIS)

3.3: *Invited Paper:* TBD (3:40 PM)

Xiaoli Sun, NASA Goddard Space Flight Center, Greenbelt, MD, US

3.4: *Invited Paper:* TBD (4:20 PM)

Johan Rothman, CEA-Leti, Grenoble, France

TABLETOP EXHIBITS/WINE & CHEESE RECEPTION (5:00 – 6:30 PM)

WEDNESDAY, SEPTEMBER 16, 2026

Registration

7:30 AM - 4:30 PM / Ballroom Pre-Convene

Continental Breakfast

7:30 AM - 9:30 AM / Atrium

Welcoming Remarks

8:30 AM - 9:00 AM / Laguna Grande AB

Session 4: Industrial Overview II

9:00 AM - 9:40 AM / Laguna Grande AB

Chair: Fikri Aqariden, DRS Electro-Optical & Infrared Systems (EOIS)

4.1: *Invited Paper:* HgCdTe-based Focal Plane Arrays Using High Density Vertically Integrated Photodiode (HDVIP) Technology (9:00 AM)

Fikri Aqariden, Leonardo DRS, Bolingbrook, IL, US

BREAK (9:40 AM)

Session 5: Systems and Devices

10:00 AM - 4:00 PM / Laguna Grande AB

Chair: Priyalal Wijewarnasuriya, Raytheon Vision Systems

5.1: *Invited Paper:* Low-Cost SWIR/eSWIR Focal Plane Arrays Using Colloidal Quantum Dots and SiGeSn for Active/Passive Applications (10:00 AM)

Nanditha Dissanayake, Attollo Engineering - SAFRAN DSI, Camarillo, CA, US

5.2: *Invited Paper:* Metamorphic InAs/InAsSb Superlattice nBn Detectors on GaSb Substrates (10:40 AM)

Stephanie Tomasulo, U.S. Naval Research Laboratory, Washington, DC, US

5.3: Photolithography Processing of HgCdTe Detectors using Direct Write Tools (11:20 AM)

Robert Fisher, Teledyne Imaging Sensors, Camarillo, CA, US

5.4: Ultra-Small Pixels at Wavelength Scale: News on Higher Operating Temperature LWIR MCT-Based FPAs at AIM (11:40 AM)

Manuel Ulbrich, AIM Infrarot-Module GmbH, Heilbronn, Germany

LUNCH (12:00 PM)

Session 5: Systems and Devices (cont.)

10:00 AM - 4:00 PM / Laguna Grande AB

Chair: Priyalal Wijewarnasuriya, Raytheon Vision Systems

5.5: *Invited Paper:* TBD (1:40 PM)

Olivier Gravrand, CEA-LETI, Grenoble, France

5.6: *Invited Paper:* TBD (2:20 PM)

Binh-Minh Nguyen, HRL, Malibu, CA, US

5.7: Status of MW and LW Planar HgCdTe Infrared Detectors Grown by Molecular Beam Epitaxy for Space Applications at Raytheon Vision Systems (3:00 PM)

Priyalal Wijewarnasuriya, Raytheon Vision Systems, Goleta, CA, US

5.8: Detectivity of Near Room Temperature PbS₂ IR Detectors (3:20 PM)

Keiya Hiraoka, Materials Research Laboratory, Massachusetts Institute of Technology, Cambridge, MA, US

5.9: Modeling and Experimental Evidence for Dose-Rate Independent Displacement Damage Due to Proton Irradiation in Infrared Detectors (3:40 PM)

Julie Logan, Air Force Research Laboratory, Kirtland AFB, NM, US

BREAK (4:00 PM)

Session 6: Defects and Doping

4:20 PM - 5:00 PM / Laguna Grande AB

Chair: Madhu Reddy, Raytheon Vision Systems

6.1: *Invited Paper:* How do Excess Carriers Affect the Steady-State Thermodynamic Stability of Point Defects? (4:20 PM)

Michael Scarpulla, University of Utah, Salt Lake City, UT, US

Session 7: Modeling

5:00 PM - 6:20 PM / Laguna Grande AB

Chair: Enrico Bellotti, Boston University

7.1: *Invited Paper:* TBD (5:00 PM)

Gregory Forcherio, NSW Crane, Crain, IN, US

7.2: *Invited Paper:* TBD (5:40 PM)

THURSDAY, SEPTEMBER 17, 2026

Registration

7:30 AM - 5:00 PM / Ballroom Pre-Convence

Continental Breakfast

7:30 AM - 9:30 AM / Atrium

Welcoming Remarks

8:30 AM - 9:00 AM / Laguna Grande AB

Session 8: Industrial Overview III

9:00 AM - 10:20 AM / Laguna Grande AB

Chair: *Fikri Aqariden, DRS Electro-Optical & Infrared Systems (EOIS)*

8.1: **Invited Paper:** Characterization of RTS Noise in HgCdTe Infrared Photo Detectors at ASELSAN (9:00 AM)

Yigit Ozer, ASELSAN Inc., Ankara, Turkey

8.2: **Invited Paper:** HOT and Small Pitch Infrared Detectors Development at LYNRED (9:40 AM)

Laurent Rubaldo, Lynred, Veurey-Voroize, France

BREAK (10:20 AM)

Session 9: Materials

10:40 AM - 2:40 PM / Laguna Grande AB

Chair: *Bo Shojaei, Teledyne Imaging Sensors*

9.1: **Invited Paper:** A Better Formula for the Electron Affinity of HgCdTe and the Implication for Band Alignment in HgCdTe Heterojunctions (10:40 AM)

David Rhiger, Raytheon Vision Systems, Goleta, CA, US

9.2: **Invited Paper:** Metasurface-Coupled HgCdTe Alloys for Nonreciprocal Optical Limiting (11:20 AM)

Zhi-Gang Yu, Sivananthan Laboratories, Bolingbrook, IL, US

LUNCH (12:00 PM)

Session 9: Materials (cont.)

10:40 AM - 2:40 PM / Laguna Grande AB

Chair: *Bo Shojaei, Teledyne Imaging Sensors*

9.3: **Invited Paper:** TBD (1:40 PM)

Nibir Dhar, Virginia Commonwealth University, Richmond, VA, US

9.4: **Student Paper:** How Can the Coupling of XPS Photopeaks and X-AES Transitions Unveil the Degradation Reactivity of II-VI Materials? (2:20 PM)

Antonin Frappreau, Institut Lavoisier de Versailles, Versailles, France

BREAK (2:40 PM)

Session 10: Superlattice

3:00 PM - 4:40 PM / Laguna Grande AB

Chair: *Chad Fulk, HRL Laboratories, LLC*

10.1: **Invited Paper:** A NEGF Perspective on Auger Recombination and Impact Ionization in Type-II Superlattice Infrared Photodetectors (3:00 PM)

Jesus Gonzalez Montoya, Politecnico di Torino, Torino, Italy

10.2: **Invited Paper:** GeSn for MWIR (3:40 PM)

Fisher Yu, University of Arkansas, Fayetteville, AR, US

10.3: **Motivation of the "Inverted" III-V SL-Based MWIR nBn for Enhanced Performance of Focal Plane Arrays for Space-Based Applications (4:20 PM)**

Alexander Newell, RVSU, Albuquerque, NM, US

CASSELMAN/SPICER BEST STUDENT PAPER AWARD (4:40 PM)