



# ADVANCED TECHNOLOGY FOR NATIONAL SECURITY WORKSHOP

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8–9 APRIL 2025

## 8 April: Advanced Imaging Technology and Systems

- Emerging Surveillance Concepts
- Search and Acquisition
- Classification and Coordination

**Keynote:** Government Perspective  
Ben Conley, NSWC Crane Division

**Keynote:** EO/IR and Photonics Sensing at AFRL  
Emily Heckman, AFRL Sensors Directorate

## 9 April: Advanced Laser Technology and Systems

- Tracking and Targeting
- Directed Energy Systems
- Emerging Laser Technology

**Keynote:** Government Perspectives on Directed Energy  
Mark Spencer, Acting OUSD R+E Directed Energy PD and JDETO Director

**Note:** Attendance is limited to U.S. Citizens with an active DoD security clearance.

## ADVANCED IMAGING TECHNOLOGY AND SYSTEMS

### TUESDAY, 8 APRIL

#### Keynote Session

- 0830 Introduction
- 0835 Keynote - Government Perspective ..... **Ben Conley**,  
Senior Scientist and Technology Manager for EO and IR Sensing , NSWC Crane Division
- 0920 Keynote - EO/IR and Photonics Sensing at AFRL..... **Emily Heckman**,  
Photonics Area Lead at AFRL Sensors Directorate
- 1005 *Break*

#### Session 3: Emerging Surveillance Concepts

- 1035 Global Persistent ISR ..... **Robert Michniak, Jonathan Leu, and Kyle McNicholas**, MIT LL
- 1120 SDA Topic..... TBA
- 1150 Single-Photon Sensitive, Energy-Resolving Superconducting Detectors ..... **Kevin Ryu**, MIT LL
- 1215 Off-Axis Laser Detection, Geolocation, and Characterization ..... **Erin Tomlinson**, MIT LL
- 1240 *Lunch*

#### Session 3: Search and Acquisition

- 1340 Government Perspective ..... TBA
- 1410 Astrix ..... **Seth Hunter**, MIT LL
- 1435 WISP Update - Tactical Wide-Area Scanning IR System ..... **Michael Kelly**, Anduril Imaging
- 1505 *Break*

#### Session 4: Classification and Coordination

- 1535 Commercial Perspective..... **Stephen Griggs**, SRI International
- 1605 Commercial Perspective..... **Pradip Mitra** , Leonardo DRS
- 1635 Advanced Classification/ID for cUAS Leveraging Passive IR Systems ..... **Vladimir Liberman**, MIT LL
- 1700 Mid-IR Free Space Optical Communication ..... **Matthew Byrd**, MIT LL
- 1725 *Workshop Reception*

## ADVANCED LASER TECHNOLOGY AND SYSTEMS

### WEDNESDAY, 9 APRIL

#### Keynote Session

- 0830 Introduction
- 0835 Keynote - Government Perspectives on Directed Energy..... **Mark Spencer,**  
Acting OUSD R+E Directed Energy Principal Director and JDETO Director
- 0920 Air Force Perspectives on Directed Energy..... TBA
- 1005 Army Perspectives on Directed Energy..... **Neset Akozbek,**  
Senior Research Scientist, ST, Army SMD
- 1035 *Break*

#### Session 2: Tracking and Targeting

- 1105 High-Energy Laser Systems and Their Effects..... **Kevin Creedon,** MIT LL
- 1130 Target Aimpoint Tracking with 3D Imaging LADAR..... **John Ogren,** MIT LL
- 1155 Low-Noise Ge DFPA for Fine Tracking..... **Ilya Prigozhin,** MIT LL
- 1220 *Lunch*

#### Session 3: Directed Energy Systems

- 1320 Government Perspectives on Directed Energy Systems..... **Matthew Ketner,** ONR
- 1350 Industry Perspective on Directed Energy Technology..... TBA
- 1420 Industry Perspective on Directed Energy Technology..... **Dale Martz,** nLight
- 1450 Industry Perspective on Directed Energy Technology..... **Robert Afzal,** Lockheed Martin
- 1520 *Break*

#### Session 4: Emerging Laser Technology

- 1550 2µm Laser Development..... **Brian Anderson,** AFRL/RD
- 1620 Panelized HEL Technology Development..... **Andrew Benedick,** MIT LL
- 1645 High-Power Supercontinuum Lasers..... **Jason Langseth,** MIT LL
- 1710 *Adjourn*