



ADVANCED TECHNOLOGY FOR NATIONAL SECURITY WORKSHOP

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

Keynote: The Defense Innovation Ecosystem
John Griffin, Autonomy Portfolio/Boston Community Lead at DIU

9 April: Advanced Laser Technology and Systems

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

Keynote: DoD Directed Energy Roadmap and Joint S&T Investments
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

Plenary Session

- 0830 Introduction
- 0835 Keynote - Government Perspective **Ben Conley**,
Senior Scientist and Technology Manager for EO and IR Sensing , NSWC Crane Division
- 0915 Keynote - EO/IR and Photonics Sensing at AFRL..... **Emily Heckman**,
Photonics Area Lead at AFRL Sensors Directorate
- 0955 Keynote - The Defense Innovation Ecosystem **John Griffin**,
Autonomy Portfolio/Boston Community Lead at DIU

1035 *Break*

Session 2: Emerging Surveillance Concepts

Session Chair: Serkey Olmez, MIT LL

- 1105 Global Persistent ISR **Robert Michniak, Jonathan Leu, and Kyle McNicholas**, MIT LL
- 1145 Single-Photon Sensitive, Energy-Resolving Superconducting Detectors **Kevin Ryu**, MIT LL
- 1215 Off-Axis Laser Detection, Geolocation, and Characterization **Erin Tomlinson**, MIT LL

1245 *Lunch*

Session 3: Search and Acquisition

Session Chair: Mallory Jensen, MIT LL

- 1345 Commercial Perspective..... **Pradip Mitra** , Leonardo DRS
- 1415 Astrix **Seth Hunter**, MIT LL
- 1445 WISP Update - Tactical Wide-Area Scanning IR System **Michael Kelly**, Anduril Imaging

1515 *Break*

Session 4: Classification and Coordination

Session Chair: Dan Gastler, MIT LL

- 1545 Commercial Perspective..... **Stephen Griggs**, SRI International
- 1615 Advanced Classification/ID for cUAS Leveraging Passive IR Systems **Vladimir Liberman**, MIT LL
- 1645 Mid-IR Free Space Optical Communication **Matthew Byrd**, MIT LL

1715 *Workshop Reception*

ADVANCED LASER TECHNOLOGY AND SYSTEMS

WEDNESDAY, 9 APRIL

Plenary Session

- 0830 Introduction
- 0835 Keynote - DoD Directed Energy Roadmap and Joint S&T Investments **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 SMDC
- 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 S&T to Operational Capabilities – Naval Perspectives on DE Systems 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*