

Panel title: **Miniaturized and Mobile Spectroscopy and Optical Sensor Applications**  
([event website](#))

Organizer: **MIRTHE<sup>+</sup>, PRISM Princeton University, and SPIE**

Date: **Wednesday, April 12, 2017**

Time: **10:30 AM**

Location: **Anaheim Convention Center, Industry Stage, Exhibition Hall, Anaheim, CA**

Panelists from industry, academia, government laboratories and venture capital community will discuss opportunities driven by miniaturization of spectroscopic sensing systems and optical sensor applications. The speakers will discuss industry needs for wide-range commercial, security and defense applications. The wearable devices for rapid chemical and biological sensing in clinical and harsh field environments, and biodegradable and disposable systems will be also discussed. Listen and interact with leaders in the spectroscopy and sensing community, and come to share your ideas.

**Panelists:**

**Lance Christensen** ([bio](#)), Finding and Quantifying Natural Gas Emissions using the JPL Open Path Laser Spectrometer (OPLS) on sUASs, *NASA Jet Propulsion Laboratory (JPL)*

**Tim Day** ([bio](#)), Bringing Infrared Sensing to the Threat: Drone-Portable Quantum Cascade Laser Analyzers, *Daylight Solutions Inc.*

**Mickey Frish** ([bio](#)), Emerging Mobile and Airborne TDLAS Sensors for Natural Gas Leak Quantification, *Physical Sciences Inc.*

**William Green** ([bio](#)), Chip-scale trace-gas spectrometers for methane leak detection, *IBM T.J. Watson Research Center*

**Ralph Taylor-Smith** ([bio](#)), Investors perspective and investing climate, *GE Ventures*

**Mark Zondlo** ([bio](#)), Quantifying methane emissions on short- and long-duration sUAS: challenges and opportunities, *Princeton University*

**Moderator: Joseph Montemarano**, Princeton University.

Joseph Montemarano has been involved in state-of-the-art research and commercialization efforts related to health-care, defense and homeland security, advanced materials, computer science and photonic applications throughout his career. Mr. Montemarano has helped large and small companies, and government researchers access emerging technologies, faculty and other university resources resulting in a significant increase in sponsored research, the launch of several spin-off companies, and successful technology commercialization and fielded applications. He joined Princeton University in July 1994, where he is a Director for Industrial Enterprise for the Princeton Institute for Science and Technology of Materials (PRISM).

**MIRTHE<sup>+</sup>** is a Photonics Sensing Center at Princeton University and Partners advances the knowledge and technology pertaining to mid-infrared photonics sensing technologies for health, the environment, and homeland security applications. Through our Academia-Industry Collaboration Program, member companies leverage a unique access to innovative research and network of highly respected expertise from academia and industry. MIRTHE<sup>+</sup> industry members come from all key sectors focused on moving photonics sensing technologies towards commercialization. To learn more go to [www.mirthecenter.org](http://www.mirthecenter.org)