

# Semiconductor Metrology Research and Development Workshop

April 6-7, 2022 &  
April 20-21, 2022

**Virtual**

Hosted by the National Institute of  
Standards and Technology (NIST)

NIST is convening two Semiconductor Metrology Research and Development virtual workshops to engage with stakeholders across the microelectronics innovation ecosystem to identify the optimal approaches in measurement science, standards development, and measurement services to support U.S. industry. The first day of each workshop will be primarily informational and will begin with an overview of the CHIPS Act and a plenary speaker. The opening session will be followed by (1) four panels of speakers on specific topic areas, and (2) a webinar on one of the CHIPS Act programs to explore in greater detail questions raised in the recently released Request for Information (RFI). The second day will feature a series of breakout sessions to facilitate productive dialogue in the focus areas of the panels from the first day. Discussion with industry, government, and academic experts as part of the information gathering phase will help NIST identify and document semiconductor industry needs to inform the development of a metrology R&D plan for next generation microelectronics. The agenda includes brief descriptions of the speaker panels and corresponding facilitated breakout sessions for each workshop.



## Panel Topics

### April 6-7, 2022

Panel 1: Metrology for Materials and Dimensional Scaling

Panel 2: In-Line Metrology for High-Throughput Manufacturing

Panel 3: Materials Quality for Suppliers

Panel 4: Digital Enablers to Improve Design and Manufacturing

### April 20-21, 2022

Panel 1: Novel Metrologies for Advanced Packaging

Panel 2: Critical Areas for the Future of Advanced Packaging

Panel 3: Materials and Device: Characterization, Modeling, and Design

Panel 4: Security and Trust Across Semiconductor Development and Supply Chain

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