

## DATAWorks 2018 Focuses on Rigorous Statistical Approaches

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The Defense and Aerospace Test and Analysis Workshop (DATAWorks), held March 20–22, 2018, in Springfield, Virginia, combined the Science of Test Workshop (held in 2016 and 2017) with the Conference on Applied Statistics in Defense (held in 2014, 2015, and 2016). The purpose of DATAWorks 2018 was to build a community that understands the value that rigorous statistical approaches bring to solving the complex problems related to aerospace, defense, and national security. The workshop was organized jointly by IDA, NASA, the Office of the Director of Operational Test and Evaluation in the Office of the Secretary of Defense, and the Section on Statistics in Defense and National Security of the American Statistical Association. Highlights from some of the keynote speakers follow, along with links to videos of their presentations (and slide decks, where available).



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### David Chu, President of IDA

Opening Remarks

“Our goal...is to build a stronger community [and] more rigorous statistical approaches to solving public policy problems, particularly those problems in the test and evaluation regime....What I am really asking you to do is to help in educating decision makers about statistical issues.”

### Peter A. Parker, Team Lead for Advanced Measurement Systems at NASA

Highly-Effective Statistical Collaboration: The Art and the Science



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“Ignorance and argument are useful. The ability to ask and to challenge longstanding opinions and positions in a team that is functioning in a collaborative way tends to reveal unshared information that would not normally come out.”



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### Marcey Hoover, Quality Assurance Director at Sandia National Laboratories

Journey to a Data Centric Approach for National Security

“Statistics isn’t a magical solution. Our journey took us... to this middle ground where we have this mix of subject matter expertise and data-driven evidence.”



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**Mark J. Lewis, Director of IDA's Science and Technology Policy Institute**

**Testing and Analytical Challenges on the Path to Hypersonic Flight**

"The sorts of issues that you're considering...be it analysis, test and evaluation, test on the ground, test in flight...[are] absolutely critical to the advancement of this field."

**Dave Duma, Principal Deputy Director of Operational Test and Evaluation in the Office of the Secretary of Defense**  
Closing Remarks

"Communicate clearly, particularly to non-STEM folks. You have to translate the data into something that the decision makers can understand, and the decision makers are varied....When you are dealing with data...graphs help because not only does it show the specific data but it shows the trend, and that's important."



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