

Title, Abstract and Bio for

Keynote speech on April 26 at the  
10<sup>th</sup> Annual MODSIM World Conference (MODSIM World 2017)  
Virginia Beach Convention Center

**Title:** Innovative Applications of Modeling and Simulation in IARPA Test and Evaluation

**Abstract:** The Intelligence Advanced Research Projects Activity (IARPA) engages in high risk/high payoff (IARPA-hard) research to address critical challenges in the Intelligence Community. A required element of every IARPA research program is a Test and Evaluation (T&E) plan where progress can be rigorously and independently measured. When addressing IARPA-hard problems, achieving rigorous T&E can itself be a hard challenge, requiring innovation. Imagine for example a program to improve analytic accuracy, where rigorous T&E might require quantitative measurement of the accuracy of causal claims in complex unstructured domains such a geopolitical analysis. This presentation will examine some innovative applications of modeling and simulation to addressing hard T&E challenges.

**Presenter:** Paul Lehner

**Bio:** Dr. Paul Lehner is the chief of testing and evaluation at the Intelligence Advanced Research Projects Activity (IARPA). He joined IARPA in 2015 as a program manager for the Scientific advances to Continuous Insider Threat Evaluation (SCITE) program, and became chief of testing and evaluation in 2016. Prior to IARPA, he worked at MITRE and served in several roles, including chief engineer for both the Information Technology Division and the Internal Revenue Service Federally Funded Research and Development Center. Before MITRE, he was an associate professor of system engineering at George Mason University and the technical director for the Decision Systems Group at PAR Technology Corporation. Paul holds a bachelor's degree in psychology from Bethany College in West Virginia. He has masters' degrees in mathematics and psychology, and a doctorate in mathematical psychology from the University of Michigan. His doctoral dissertation focused on automated reasoning and strategic planning in the oriental game of Go.