Mapping Between DATAWorks talks and DOTE Strategy Implementation Plan

Session Number	Session Title	Talk Title	Speaker(s)	Speaker Organization(s)	DOT&E Pillar	DOT&E Competency	Technicality
Mini-Tutorial 1	N/A	Introduction to Uncertainty Quantification	Roger Ghanem	USC	5.1	C6 - STAT; C7 - M&S	1 - Everyone
Mini-Tutorial 2	N/A	Advancing Reproducible Research: Concepts, Compliance, and Practical Applications	Boris Chernis	IDA	2.1	C4 - Info Management	1 - Everyone
Mini-Tutorial 3	N/A	Leading Change: Applying Human Centered Design Facilitation Techniques	Kelli Esser / Christina Houfek	VT	5.1	C2 - Planning; C10 - HSI	1 - Everyone
Mini-Tutorial 4	N/A	Leveraging Bayesian Methods to support Integrated Testing	Justin Krometis / Jim Ferry	VT / Metron	5.1	C6 - STAT	2 - Practitioner
Mini-Tutorial 5	N/A	The Trade-Offs in Choosing Different Apertures for the Modeling of Defense Planning	Leo Blanken / Jason Lepore	NPS / Cal Poly	5.1	C2 - Planning	2 - Practitioner
Session 1A	T&E Concepts for Modern & Emerging Technologies	Threat Integration for Full Spectrum Survivability Assessments	Russ Kupferer	DOT&E	3.2; 4.1	C2 - Planning; C3 - Policy; C5 - Cyber; C9 - EMSO; C12 - DE	1 - Everyone
Session 1A	T&E Concepts for Modern & Emerging Technologies	A Framework for OT&E of Rapidly Changing Software Systems: C3I and Business Systems	Logan Ausman	IDA	4.3	C2 - Planning; C8 - Software	1 - Everyone
Session 1A	T&E Concepts for Modern & Emerging Technologies	Operational T&E of AI-supported Data Integration, Fusion, and Analysis Capabilities	Adam Miller / Logan Ausman	IDA	4.2	C2 - Planning; C11 - AI	1 - Everyone
Session 1A	T&E Concepts for Modern & Emerging Technologies		Christina Houfek / Maegan Nix	VT	1.1	C2 - Planning	1 - Everyone
Session 1B	Cybersecurity	Operationally Representative Data and Cybersecurity for Avionics	Steve Movit	IDA	3.2	C5 - Cyber	2 - Practitioner
Session 1B	Cybersecurity	Recommendations for Cyber Test & Evaluation of Space Systems	David "Fuzzy" Wells	MITRE	3.2	C5 - Cyber	1 - Everyone

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Session 1B	Cybersecurity	Moving Target Defense for Space Systems	Chris Jenkins / Sean Crosbey	Sandia	3.2	C5 - Cyber	3 - Technical Expert
Session 1B	Cybersecurity	Design of In-Flight Cyber Experimentation for Spacecraft	Meghan Galiardi Sahakian	Sandia	3.2	C5 - Cyber	3 - Technical Expert
Session 1C	Simulations and Statistical Methods for NASA Applications	Applications for inspection simulation at NASA	Peter Juarez	NASA			2 - Practitioner
Session 1C	Simulations and Statistical Methods for NASA Applications	CIVA NDT Simulation: Improving Inspections Today for a Better Tomorrow	Starr Dauria	Extende inc.			2 - Practitioner
Session 1C	Simulations and Statistical Methods for NASA Applications	Onboard spacecraft thermal modeling using physics informed machine learning	Zaki Hasnain	JPL			1 - Everyone
Session 1C	Simulations and Statistical Methods for NASA Applications	Optimizing Mission Concept Development: A Bayesian Approach Utilizing DAGs	Patricia Gallagher	JPL			2 - Practitioner
Session 2A	Statistical Methods for M&S Validation	Using Bayesian Network of subsystem statistical models to assess system behavior	Jim Theimer	STAT COE	1.1; 2.2	C6 - STAT; C7 - M&S	2 - Practitioner
Session 2A	Statistical Methods for M&S Validation	A practitioner's framework for federated model V&V resource allocation	Dhruv Patel / Jo Anna Capp	IDA	1.1; 2.2	C6 - STAT; C7 - M&S	2 - Practitioner
Session 2A	Statistical Methods for M&S Validation	A preview of functional data analysis for modeling and simulation validation	Curtis Miller	IDA	1.1; 2.2	C6 - STAT; C7 - M&S	2 - Practitioner
Session 2B	Evaluating Human Performance	Developing AI Trust: From Theory to Testing and the Myths In Between	Yosef Razin	IDA	4.2	C10 - HSI; C11 - AI	1 - Everyone

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Session 2B	Evaluating Human Performance	Rancor-HUNTER: A Virtual Plant and Operator Environment for Predicting Human Performance	Thomas Ulrich / Ronald Boring	INL	1.2, 2.1	C10 - HSI	2 - Practitioner
Session 2B	Evaluating Human Performance	Meta-analysis of the SALIANT procedure for assessing team situation awareness	Sarah Shaffer	IDA	1.2	C10 - HSI	2 - Practitioner
Session 2C	Mathematical and Model-Based Approaches to Defense Acquisition Planning	Developing Model-Based Flight Test Scenarios	Jose Alvarado / Thomas Bradley	AFOTEC Dec 5 / CSU	2.2	C2 - Planning	1 - Everyone
Session 2C	Mathematical and Model-Based Approaches to Defense Acquisition Planning	Mission Engineering	Gabriela Parasidis	MITRE	2.2	C2 - Planning	2 - Practitioner
Session 2C	Mathematical and Model-Based Approaches to Defense Acquisition Planning	A Mathematical Programming Approach to Wholesale Planning	Nikolai Lipscomb	IDA			1 - Everyone
Session 3A	Design of Experiments Strategies and Tools	Adaptive Sequential Experimental Design for Strategic Reentry Simulated Environment	Sarah Brummond / Kelly Koser	JHU / APL	5.1	C6 - STAT	2 - Practitioner
Session 3A	Design of Experiments Strategies and Tools	Practical Experimental Design Strategies for Binary Responses under Operational Constraint	Peter Parker	NASA	5.1	C6 - STAT	1 - Everyone
Session 3A	Design of Experiments Strategies and Tools	Simulation Insights on Power Analysis with Binary Responses: From SNR Methods to 'skprJMP'	Tyler Morgan-Wall	IDA	5.1	C6 - STAT	2 - Practitioner
Session 3C			Pradeep Ramuhalli	ORNL	4.2	C11 - AI	

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Session 3C			Mahantesh Halappanavar	PNNL	4.2	C11 - AI; C5 - Cyber	
Session 3C		Regularization Approach to Learning Bioburden Density for Planetary Protection	Mike DiNicola / Andrei Gribok	JPL / INL	4.2	C11 - AI	3 - Technical Expert
Session 4A	Applications, Tools, and Methods for AI	Development, Test, and Evaluation of Small-Scale Artificial Intelligence Models	David Niblick	ATEC	2.1; 4.2	C11 - AI	1 - Everyone
Session 4A	Applications, Tools, and Methods for AI	Bringing No-Code Machine Learning to the average user	Alex Margolis	Edaptive Computing	2.1; 4.2	C11 - AI	2 - Practitioner
Session 4A	Applications, Tools, and Methods for AI	MLTEing Models: Negotiating, Evaluating, and Documenting Model and System Qualities	Robert Edman / Kate Maffey	CMU / SEI / US Army	2.1; 4.2	C11 - AI	2 - Practitioner
Session 4A	Applications, Tools, and Methods for AI	Data VV&A for AI Enabled Capabilities	Jay Dennis	IDA	4.2	C11 - AI	2 - Practitioner
Session 4B	Statistical Methods for T&E	Failure Distributions for Parallel Dependent Identical Weibull Components	Gina Sigler	STAT COE / AFIT	5.1	C6 - STAT	3 - Technical Expert
Session 4B	Statistical Methods for T&E	Assessing the Calibration and Performance of Attention-based Spatiotemporal Neural Network	Nathan Gaw	AFIT	5.1	C6 - STAT	3 - Technical Expert
Session 4B	Statistical Methods for T&E	Case Study: State Transition Maps for Mission Model Development and Test Objective Identif	Nick Jones	STAT COE	5.1	C6 - STAT	1 - Everyone
Session 4B	Statistical Methods for T&E	Bayesian Reliability Growth Planning for Discrete Systems	Harris Bernstein / Scott Bindel	JHU / APL	5.1	C6 - STAT	1 - Everyone
Session 4C	Cost Estimation	Best of Both Worlds: Combining Parametric Cost Risk Analysis with Earned Value Management	Christian Smart	JPL			2 - Practitioner

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Session 4C	Cost Estimation	ADICT - A Power BI visualization tool used transform budget forecasting.	Mohammad Ahmed	Bryce			2 - Practitioner
Session 4C	Cost Estimation	Cost Considerations for Estimating Small Satellite Integration & Test	Kathy Kha / Rachel Sholder	APL			1 - Everyone
Session 4C	Cost Estimation	Examining the Effects of Implementing Data-Driven Uncertainty in Cost Estimating Models	Victoria Nilsen	NASA HQ OCFO			2 - Practitioner
Session 4D		Dynamo: Adaptive T&E via Bayesian Decision Theory	Jim Ferry	Metron	5.1	C6 - STAT	3 - Technical Expert
Session 5A	AI & Large Language Models	Demystifying Deep Learning - Aircraft Identification from Satellite Images	Cameron Liang	IDA	4.2	C11 - AI	2 - Practitioner
Session 5A	AI & Large Language Models	Unlocking our Collective Knowledge: LLMs for Data Extraction from Long-Form Documents	Patrick Bjornstad	JPL			2 - Practitioner
Session 5A	AI & Large Language Models	Creating Workflows for Synthetic Data Generation and Advanced Military Image Classificatio	James Starling	USMA			2 - Practitioner
Session 5A	AI & Large Language Models	Hypersonic Glide Vehicle Trajectories: A conversation about synthetic data in T&E	Karen O'Brien	Modern Technology Solutions, Inc	4.2; 2.2	C11 - AI; C7 - M&S	2 - Practitioner
Session 5A	AI & Large Language Models	Sensor Fusion for Automated Gathering of Labeled Data in Edge Settings	Robert Edman	CMU / SEI			2 - Practitioner
Session 5A	AI & Large Language Models	Experimental Design for Usability Testing of LLMs	Jasmine Ratchford	CMU / SEI	4.2	C6 - STAT; C11 - AI	1 - Everyone
Session 5B	Cyber, UQ & Simulations	A Statistical Framework for Benchmarking Foundation Models with Uncertainty	Giri Gopalan	Los Alamos	2.2	C7 - M&S	3 - Technical Expert

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Session 5B	Cyber, UQ & Simulations	Lessons Learned for Study of Uncertainty Quantification in Cyber-Physical System Emulation	Jamie Thorpe	Sandia	3.2	C5 - Cyber	2 - Practitioner
Session 5B	Cyber, UQ & Simulations	Silence of the Logs: A Cyber Red Team Data Collection Framework	Jason Schlup	IDA	3.2	C5 - Cyber	2 - Practitioner
Session 5B	Cyber, UQ & Simulations	Cobalt Strike: A Cyber Tooling T&E Challenge	Nathan R. Wray / Sean Phipps	DOT&E ACO	3.2	C5 - Cyber	2 - Practitioner
Session 5B	Cyber, UQ & Simulations	Global Sensitivity Analyses for Test Planning under Constraints with Black-box Models	Giuseppe Cataldo	NASA			2 - Practitioner
Session 5B	Cyber, UQ & Simulations	Simulated Multipath Using Software Generated GPS Signals	Russell Gilabert	NASA	2.2	C7 - M&S	2 - Practitioner
Session 5C	Stats and Survey Methods	Re-visiting the DASE Axioms: A Bayesian Approach for Simulation Development and Usage	Terril N Hurst	Raytheon		C6 - STAT	1 - Everyone
Session 5C	Stats and Survey Methods	Rocket Motor Design Qualification Through Enhanced Reliability Assurance Testing	Todd Remund	Northrop Grumman		C6 - STAT	3 - Technical Expert
Session 5C	Stats and Survey Methods	Overview of a survey methods test for the NASA Quesst community survey campaign	Jonathan Rathsam	NASA		C10 - HSI	1 - Everyone
Session 5C	Stats and Survey Methods	Statistical Validation of Fuel Savings from In-Flight Data Recordings	Keltin Grimes	CMU / SEI	2.2	C7 - M&S	2 - Practitioner
Session 5C	Stats and Survey Methods	The Role of Bayesian Multilevel Models in Performance Measurement and Prediction	Austin Amaya	MORSE Corporation		C6 - STAT	2 - Practitioner
Session 5C	Stats and Survey Methods	Bayesian Projection Pursuit Regression	Gavin Collins	Sandia			3 - Technical Expert