



AGENDA DAY 1

Tuesday, 23 September

0800-0830	Arrival, Check-In — <i>coffee and pastries</i>	
0830-0945	Keynote	Dr. Joel Mozer, U.S. Space Force Chief Scientist, Emeritus
0945-1000	Break	
Session 1: Space Autonomy 1		
1000-1030	Autonomous Satellite Inspection in Low Earth Orbit with Optimization-Based Safety Guarantees	Mark Stephenson, University of Colorado, Boulder
1030-1100	Multi-agent Reinforcement Learning for Spacecraft Scenarios	Nathaniel Hamilton, University of Dayton Research Institute
1100-1130	Leveraging Multi-domain Modeling in AFSIM for AI-Enabled Simulations	Victor Ong, Air Force Research Laboratory (AFRL)/ Sierra Lobo, Inc.
1130-1200	Autonomy at Levels for a Space Asset Protection Mission Example	Daniel Baker, BlueHalo and AFRL
1200-1300	Lunch Break — <i>catered sandwiches</i>	
Session 2: Space Domain Awareness 1		
1300-1330	Detection of Unexpected Maneuvers	Kallee Gallant, MIT Lincoln Laboratory
1330-1400	Autonomous Observation Scheduling using Reinforcement Learning Under Operational and Visibility Constraints	Mark Stephenson, University of Colorado, Boulder
1400-1430	An Uncertainty-Aware, and Explainable, AI Approach to Conjunction Screening	Alexander Lay, RTX BBN Technologies
1430-1500	Model Robustness Testing and Benchmarking with MaDDG (Maneuver Detection Data Generation)	Michael Tierney, MIT Lincoln Laboratory
1500-1515	Break	
Session 3: Trusted Systems and Human Factors		
1515-1545	HMI Operator Study	Kyle Dunlap, AFRL
1545-1615	Peregrine: Integrating Deep Reinforcement Learning into an Operational Training Simulator	Hayden Smotherman, Northrop Grumman
1615-1645	Input Verification through Neural Network Inversions for Space Autonomy	Vignesh Sivaramakrishnan, AFRL
1645-1715	Synthetic Imaging for the Assessment of Coarse 3D Reconstruction	Henry Lei, Verus Research
1800	No-Host Reception	Revolution Hall, 3 Maguire Road, Lexington

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

This material is based upon work supported by the Department of the Air Force under Air Force Contract No. FA8702-15-D-0001 or FA8702-25-D-B002. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Department of the Air Force.

© 2025 Massachusetts Institute of Technology.

Delivered to the U.S. Government with Unlimited Rights, as defined in DFARS Part 252.227-7013 or 7014 (Feb 2014). Notwithstanding any copyright notice, U.S. Government rights in this work are defined by DFARS 252.227-7013 or DFARS 252.227-7014 as detailed above. Use of this work other than as specifically authorized by the U.S. Government may violate any copyrights that exist in this work.



AI for Contested Space Workshop

AGENDA DAY 2

Wednesday, 24 September

0800-0830	Arrival, Check-In — <i>coffee and pastries</i>	
0830-0945	Keynote	Maj Sean Allen, Chief, SDA TAP Lab
0945-1000	Break	
Session 4: Space Domain Awareness 2		
1000-1030	Few-Shot Learning for Spectral Identification of GEO Satellites in Contested Space Environments	Roberto Furfaro, Space4 Center, University of Arizona
1030-1100	ExoChat: Democratizing Space Domain Awareness Data in Contested Environments	Chris Ingram, ExoAnalytics Solutions
1100-1130	Applying AI Generated Commands to an Active Spacecraft	John Brewer, Space Dynamics Laboratory
1130-1200	Satellite Anomaly Governance and Evaluation	Jeremiah Kollodge, Space Dynamics Laboratory
1200-1300	Lunch Break — <i>catered sandwiches</i>	
Session 5: Space Autonomy 2		
1300-1330	AFIT ANT Center 2025 Grads: Satellite Autonomy Research	Nicholas Yielding, Air Force Institute of Technology
1330-1400	The Safe Trusted Autonomy for Responsible Space (STARS) Program	Kyle Dunlap, AFRL
1400-1430	Deep Reinforcement Learning Waypoint Generator	Raul Santos, Texas A&M University, AFRL, University of Dayton Research Institute
1430-1500	Subspace Transformer Network for Space Autonomy	Kochise Bennett, Toyon Research Corporation
1500-1515	Break	
1515-1700	Session 6: Poster Session	

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

This material is based upon work supported by the Department of the Air Force under Air Force Contract No. FA8702-15-D-0001 or FA8702-25-D-B002. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Department of the Air Force.

© 2025 Massachusetts Institute of Technology.

Delivered to the U.S. Government with Unlimited Rights, as defined in DFARS Part 252.227-7013 or 7014 (Feb 2014). Notwithstanding any copyright notice, U.S. Government rights in this work are defined by DFARS 252.227-7013 or DFARS 252.227-7014 as detailed above. Use of this work other than as specifically authorized by the U.S. Government may violate any copyrights that exist in this work.



AGENDA DAY 3

Thursday, 25 September – Clearance Required

0800-0830	Arrival, Check-In – <i>coffee and pastries</i>	
0830-0945	Keynote	Professor Richard Linares, MIT Aero/Astro
0945-1000	Break	
Session 7: Selected Topics		
1000-1030	Finding Satellites Using Stellar Occultation and Machine Learning	Violet Felt, U.S. Space Force
1030-1100	Robust AI for Space Domain Awareness	Brian Knoth and Zach Folcik, MIT Lincoln Laboratory
1100-1130	Improving Satellite Identification with Synthetic Radar Image Generation	John-Scott Smokelin, MIT Lincoln Laboratory
1130-1200	Experimental Demonstrations of Trusted Distributed Autonomy Applications	Islam Hussein, Trusted Space, Verus Research, AFRL
1200-1300	Lunch Break – <i>catered sandwiches</i>	
1300-1400	LC3T Tour #1/Panel Discussion	
1400-1500	LC3T Tour #2/Panel Discussion	

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

This material is based upon work supported by the Department of the Air Force under Air Force Contract No. FA8702-15-D-0001 or FA8702-25-D-B002. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Department of the Air Force.

© 2025 Massachusetts Institute of Technology.

Delivered to the U.S. Government with Unlimited Rights, as defined in DFARS Part 252.227-7013 or 7014 (Feb 2014). Notwithstanding any copyright notice, U.S. Government rights in this work are defined by DFARS 252.227-7013 or DFARS 252.227-7014 as detailed above. Use of this work other than as specifically authorized by the U.S. Government may violate any copyrights that exist in this work.