

**MAD SCIENTIST CONFERENCE:
DISRUPTION AND THE FUTURE OPERATIONAL ENVIRONMENT**



April 24 & 25, 2019
The University of Texas at Austin
Livestreaming at: www.tradoc.army.mil/watch



WEDNESDAY, APRIL 24

DRAFT

0800-0840 REGISTRATION / NETWORKING

0840-0850 ADMIN REMARKS
Mr. Lee Grubbs
Director, Army Mad Scientist Initiative

0850-0905 WELCOME REMARKS
Senior Army Representative

0905-0920 WELCOME REMARKS
Dean Sharon Wood, University of Texas at Austin, Cockrell School of Engineering

0920-1005 KEYNOTE SPEAKER
Dr. James Canton, Global Futurist, Institute for Global Futures

1005-1030 NETWORKING BREAK

THEME: ROBOTICS

1030-1115 AI and Future Warfare
Robert O. Work, Senior Counselor for Defense and Distinguished Senior Fellow for Defense and National Security, Center for a New American Security (CNAS) and Owner, TeamWork, LLC

1115-1200 System of System-Enhanced Small Units (SESU)
Dr. Paul Zablocky, Program Manager, Strategic Technology Office (STO), Defense Advanced Research Projects Agency (DARPA)

1200-1330 NETWORKING LUNCH
SENIOR LEADER LUNCH (Invitation only) AND OPTIONAL TOURS

1330-1415 The Robocup Challenge (2050) and Human in the Loop Machine Learning
Dr. Peter Stone, Professor, Computer Science, University of Texas at Austin
Dr. Garrett Warnell, Research Scientist, Army Research Lab South

1415-1500 Transitioning Technology and People out of Academia
Dr. Mitch Pryor, Research Scientist, Mechanical Engineering, University of Texas at Austin
Brian O'Neil, Research and Development Engineer, Los Alamos National Labs

1500-1545 Reliable Autonomous Robotics: Perception, Learning, and Trust
Dr. Maruthi Akella, Professor, Aerospace Engineering and Engineering Mechanics, University of Texas at Austin
Dr. Todd Humphreys, Associate Professor, Aerospace Engineering and Engineering Mechanics, University of Texas at Austin

1545-1600 NETWORKING BREAK

1600-1645 Human-Robot Interaction and Disaster Robotics
Coitt Kessler, Robotics for Emergency Deployment Team, Austin Fire Department
Dr. Julie A. Adams, Associate Director of Research, Collaborative Robotics and Intelligent Systems Institute, Electrical Engineering and Computer Science, Oregon State University

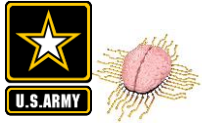
1645-1700 CLOSING REMARKS
Lieutenant General Theodore Martin, Deputy Commanding General, U.S. Army Training and Doctrine Command (Via Video)

1700-2000 *No-Host Social (directly following closing remarks)*

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THURSDAY, APRIL 25

DRAFT

0800-0845

Accurate Technology Forecasting to Enable Army Operational Overmatch into the Deep Future

Dr. Troy Alexander, Technology Forecasting Lead, Combat Capabilities Development Command (CCDC), Army Research Laboratory

THEME: FUTURE OF SPACE AND ETHICS

0845-0930

Robotics in Space

Julia Badger, Project Manager, Robotics Intelligence for Human Spacecraft Team, NASA

0930-1030

PANEL: Ethics and the Future of AI Innovation

Moderator: Dr. Ken Fleischmann, Associate Professor, School of Information, University of Texas at Austin
Dr. Jakki Bailey, Assistant Professor, School of Information, University of Texas at Austin
Dr. Danna Gurari, Assistant Professor, School of Information, University of Texas at Austin
Dr. Matt Lease, Associate Professor, School of Information, University of Texas at Austin
Ms. Evanna Hu, Fellow, International Security Program at New America, CEO and Partner of Omelas

1030-1045

NETWORKING BREAK

1045-1130

Hypersonics and Autonomy in Near Earth Orbit

Dr. Alex Roesler, Deputy Director, Integrated Military Systems Center, Sandia National Labs
Dr. Gary Polansky, Chief Scientist for Hypersonic Technology Development and Applications, Sandia National Labs

1130-1230

Space Traffic Management and Situational Awareness

Dr. Moriba K Jah, Associate Professor, Aerospace Engineering and Engineering Mechanics, University of Texas at Austin
Dr. Diane Howard, Adjunct Professor, School of Law, University of Texas at Austin

1230-1345

NETWORKING LUNCH (Briefing by Michael C. Sekora, President of Quadrigy, Inc.)

1345-1445

PANEL: Space Law Games

Matt Bold, Lockheed Martin or Dr. Diane Howard, Sustaining Orbital Activities, Laws, Policies, and Strategies
Paul Frakes, Futurist, The Aerospace Corporation
+ Student Panelist
+ Student Panelist

1445-1530

Planet Habitability and Life Forms

Xenobiology for Military Applications:
Dr. Andrew D. Ellington, Professor, Molecular Biosciences, University of Texas Austin
Europa Clipper Mission:
Dr. Krista Soderlund, Research Associate, Institute of Geophysics, University of Texas Austin

1530-1545

NETWORKING BREAK

1545-1630

Science Fiction and the Future Operational Environment

Martha Wells, Science Fiction Author, Murderbot Diaries

1630-1645

CLOSING REMARKS

Mr. Thomas Greco
Director of Intelligence, Deputy Chief of Staff, G-2, U.S. Army TRADOC

1645

Conference Adjourns