

# 2022 Trust & Influence Program Review

Dr. Laura Steckman | September 12-16, 2022 | Arlington, VA -hybrid

Basic Research Innovation Collaboration Center (BRICC)  
4100 N Fairfax Drive, Suite 450 | Arlington VA 22203

(All Times US Eastern)

Agenda Day 1 | Monday, September 12, 2022

Time	Topic	Speaker
8:30-9:00	In-person check-in/Zoomgov Login	
9:00-10:00	PI Meeting – For Program PIs only	
10:00-11:00	Program Kickoff  Keynote	Laura Steckman, AFOSR  <b>Dr. Jaret Riddick,</b> Acting Principal Director for Trusted Artificial Intelligence and Autonomy, OUSD R&E
11:00-11:10	<b>BREAK</b>	
11:10-11:20	Long and De-Stabilizing Shadows: The Identity Shaping Power of Media Systems and Their Impact on Global Security	Anthony Lemieux, Carol Winkler, Dror Walter, Georgia State University
11:20-11:30	Influence in the Western Pacific	Erin Lin, Ohio State University
11:30-11:40	Trustworthy Ad Hoc Teamwork Project	Alberto Sardinha, Universidade de Lisboa
1:40-11:50	Climate Change and Alternative Governance	Kathleen Cunningham, University of Maryland
11:50-12:00	Cultural Transformations in Response to Different Climate Shocks and Hazards	Eric Jones, University of Texas Health Science Center at Houston
12:00-12:10	Comparing Underlying Drivers of South-North Migration in Central America and West Africa	Alexander de Sherbinin, Columbia University
12:10-12:20	Climate Change, Resource Reallocation, and Great Power Competition	Kristopher Ramsay, Princeton University
12:20-12:30	Stance Detection and Ideology Prediction for Diverse Genres of Text	Lu Wang, University of Michigan
12:30-12:40	Social and Institutional Determinants of Vulnerability and Resilience to Climate Hazards in the African Sahel	Leonardo A. Villalón, Renata Serra and Sarah McKune, University of Florida
12:40-12:50	Post-Conflict Security Structures and Citizen Buy-In	Aila Matanock, University of California Berkeley

<b>12:50-1:00</b>	Computational Kremlinology: Analyzing the Dynamics of Authoritarian Regime Elites using Networks Constructed from Images and Text	Michael Gabbay, University of Washington
<b>1:00-1:45</b>	<b>LUNCH</b>	
<b>1:45-1:55</b>	What's Missing? Innovating Interdisciplinary Methods for Hard-to-Reach Environments	Erika Frydenlund, Old Dominion University
<b>1:55-2:25</b>	Complex Linkages, Ambivalent Ties: Global Security and Economic Interdependence in the 21st Century	Erik Gartzke, University of California, San Diego
<b>2:25-2:55</b>	Foreign Military Training: Building Effective Armed Forces in Weak States	Will Reno, Northwestern University
<b>2:55-3:25</b>	Calibrated Norm Violation Response in Human-Machine Teaming	Tom Williams, Colorado School of Mines
<b>3:25-3:35</b>	<b>BREAK</b>	
<b>3:35-4:05</b>	Analyzing Effects of Sanctions on International Economic Interdependencies	Lincoln F. Pratson and Morad Bali, Duke University
<b>4:05-4:35</b>	Considerations of Ethical and Unethical Behavior on Trust in Human-Autonomy Teaming	Nathan McNeese, Clemson University
<b>4:35-5:05</b>	Improving Situation Awareness in Distributed Human-Robot Teams	Nancy Cooke, Arizona State University
	<b>MEETING ADJOURN</b>	

<b>(All Times US Eastern)</b> <b>Agenda Day 2   Tuesday, September 13, 2022</b>		
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
<b>7:45-8:00</b>	<b>In-person check-in/Zoomgov Login</b>	
<b>8:00-8:30</b>	Detecting Distrust towards a Virtual Assistant from the User's Speech	Luciana Ferrer, Fundacion Ciencias Exactas Y Naturales
<b>8:30-9:00</b>	Leveraging Wedge Issues among Populations Susceptible to the Influence or Control of the Islamic State	Scott Atran, Artis Research & Risk Modeling
<b>9:00-9:30</b>	The Ethics of Warfighter Participation in the Development and Testing of AI-Driven Performance Enhancements	Nicholas Evans, Massachusetts University of Lowell MA
<b>9:30-9:40</b>	<b>BREAK</b>	
<b>9:40-10:10</b>	Trust Dynamics in Heterogeneous Human-Agent Teams: Applying Multilevel and Unobtrusive Perspectives	Meredith Carroll, Florida Institute of Technology

10:10-10:40	Symbolic Cognitive Spatial Reasoning for Collaboration and Trust in Human-Robot Teams	Samuele Vinanzi and Angelo Cangelosi, University of Manchester
10:40-10:50	<b>BREAK</b>	
10:50-11:15	Trust in Machine Agents Under Realistic Threat	Colin Holbrook, University Of California Merced
11:15-11:45	Trust Building in Human-Autonomy Teaming: A Reinforcement Learning Approach	X. Jessie Yang, University of Michigan
11:45-12:15	Assessing the Impact of Right-Wing Extremist Organization Propaganda on Radicalization and Support for Domestic Political Violence among Individuals with Military Service	Robert Pape, The University of Chicago
12:15-12:45	Addressing Resilience in the Western Alliance Against Fragmentation: Willingness to Sacrifice and the Spiritual Dimension of Intergroup Cooperation and Conflict	Scott Atran, Pembroke College Oxford
12:45-1:20	<b>LUNCH</b>	
1:20-1:50	Assessing the Impact of Exogenous Shocks on User Behavior and Information Diffusion in Social Media	Daniel Romero, Regents of The University of Michigan
1:50-2:20	Human–dog Relationships as a Working Framework for Exploring Human-robot Attachment	Frank Krueger, George Mason University
2:20-2:50	Automatic Detection and Analysis of Extremist Video Content on Social Media using Text, Speech, and Visual Features	Julia Hirschberg, Columbia University
2:50-3:20	Algorithmic Personalization and Online Radicalization: A Mixed Methods Approach	Brian Ekdale, University Of Iowa
3:20-4:00	Growing Chinese Economic Power and the Exacerbating Effects of U.S. Economic Interdependence <i>with student presentation</i> : Potential Impacts of a Chinese Space-Based Solar Power Energy Regime on the Global Energy Supply and Security Order	Shade Shutters, Arizona State University  Miles McAnulty, Arizona State University
4:00-5:00	Discussion Session	Student Social
	<b>MEETING ADJOURN</b>	

<b>(All Times US Eastern)</b> <b>Agenda Day 3   Wednesday, September 14, 2022</b>		
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
<b>7:45-8:00</b>	<b>In-person check-in/Zoomgov Login</b>	
<b>8:00-8:30</b>	Human & Intelligent-Agent Trust for Ethical and Effective Teaming	Chad Tossell, US Air Force Academy
<b>8:30-9:00</b>	RESPECT: Robot innEr SPEeCH for Trust	Antonio Chella, Università Degli Studi Di Palermo
<b>9:00-9:30</b>	The Topology of Interdependent Multi-Domain Behavioral Systems	Nina Fefferman, University of Tennessee Knoxville TN
<b>9:30-10:40</b>	Discussion Session	
<b>10:40-11:00</b>	<b>BREAK</b>	
<b>11:00-11:30</b>	Network-based Neurophysiological and Psychophysiological Metrics of Human Trust Dynamics When Teamed with Autonomy (DURIP)	Allison Anderson, Regents of The University of Colorado and Zhaodan Kong, University of California Davis
<b>11:30-12:00</b>	Enabling Trusted Human-Like Artificial Teammates	Mattias Scheutz, Tufts University
<b>12:00-12:45</b>	<b>LUNCH</b>	
<b>12:45-1:15</b>	Organizational Implications of Autonomy-Mediated Interaction	Jonathan Gratch, University of Southern California
<b>1:15-1:45</b>	The Dynamics of Common Knowledge on Social Networks: An Experimental Approach	Read Montague, Virginia Tech Chris Kuhlman, University of Virginia
<b>1:45-2:15</b>	Modeling and Learning Highly Nonlinear Interactions within Social Media Networks	Eduardo Pasillao, AFRL RW
<b>2:15-2:30</b>	<b>BREAK</b>	
<b>2:30-3:00</b>	Adaptive Conventions for Trustworthy Human-Robot Interaction	Dorsa Sadigh, Stanford University
<b>3:00-3:30</b>	Total War: Multi-Agent Network Theory of Connective Action in a Cross-Domain Coupled World	Neil Johnson, The George Washington University
<b>3:30-4:00</b>	Current Research trends on Cognition, Integrative Complexity and Decision making: A Systematic Literature Review from Activity Theory	Edmundo Molina-Pérez, Tecnológico de Monterrey
<b>4:00-4:30</b>	Spoken Indicators of Trust Across Cultures	Julia Hirschberg, Columbia University
<b>4:30-5:00</b>	Linking Online Attention to Measurable Actions	Yu-Ru Lin, University of Pittsburgh and Lexing Xie, Australian National University

	<b>MEETING ADJOURN</b>
--	------------------------

<b>(All Times US Eastern)</b> <b>Agenda Day 4   Thursday, September 15, 2022</b>		
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
<b>7:45-8:00</b>	<b>In-person check-in/Zoomgov Login</b>	
<b>8:00-8:30</b>	From Astronomy to SSA : Convolved Spectra for Geosynchronous Satellites Characterization	José Luis E. Nilo Castellón, Universidad de La Serena
<b>8:30-9:00</b>	The Spread of Trust and Distrust in Distributed Human-Autonomy Teaming Constellations	Nathan McNeese, Clemson University
<b>9:00-9:15</b>	Trusted Distributed Human-Machine Teaming for Safe and Effective Space-based Missions	Nancy Cooke, Arizona State University
<b>9:15-9:30</b>	<b>BREAKOUT</b>	
<b>9:30-10:00</b>	Moral Justifications to Foster Human-Machine Trust	Elizabeth Phillips, George Mason University, Bertram Malle, Brown University
<b>10:00-10:30</b>	Evaluations of Truth and Trustworthiness (NDSEG)	Isaac Handley-Miner, Boston College
<b>10:30-10:45</b>	Collaborating with Humans via Inverse Reinforcement Language on Language (NDSEG)	Theodore Summers, Princeton University
<b>10:45-11:00</b>	<b>BREAK</b>	
<b>11:00-12:00</b>	Discussion Session	Student Social
<b>12:00-1:00</b>	<b>LUNCH</b>	
<b>1:00-1:30</b>	Extending Theoretical Trust Modelling: A Field Study of Heterogeneous Human-Machine Teams Operating in Contexts with Real Users, Real Systems, and Real Consequences	Nhut Ho, California State-Northridge
<b>1:30-2:00</b>	Developing an Extendable Bi-Directional Model of Human-AI Trust for Joint Action	Kosa Goucher-Lambert, University of California Berkeley
<b>2:00-2:30</b>	Quantifiable Expectability and Measurable Intentions: Computational Calibrated Trust in Human-AI Joint Activity	Eugene Santos, Dartmouth University
<b>2:30-3:00</b>	Investigating Human Trust in AI: A Case Study of Human-AI Collaboration on a Speech-Based Data Analytics Task	Theodora Chaspari, Texas A&M
<b>3:00-3:15</b>	Factors Influencing Trust in Technology	Sonia Sousa, Tallinna Ulikool

<b>3:15-3:30</b>	<b>BREAK</b>	
<b>3:30-4:00</b>	The Cultural, Economic, and Institutional Determinants of AI Infrastructures and their Consequences In Global Contexts	JP Singh, George Mason University
<b>4:00-4:30</b>	A Quantum Holistic Trust Model for Calibrating Trusted Interactions between a Human Agent and AI System	Peter Bruza, Queensland Institute of Technology
<b>4:30-5:00</b>	Trustworthy Human Interaction with Robotic Swarms	Katia Sycara, Carnegie Mellon University
	<b>MEETING ADJOURN</b>	

<b>(All Times US Eastern)</b> <b>Agenda Day 5   Friday, September 16, 2022</b>		
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
<b>7:45-8:00</b>	<b>In-person check-in/Zoomgov Login</b>	
<b>8:00-8:30</b>	Networked Social Influence and Acceptance in a New Age of Crises	Weisi Guo, Cranfield University
<b>8:30-9:00</b>	Modeling and Learning Highly Nonlinear Interactions within Social Media Networks	Eduardo Pasillao, AFRL RW
<b>9:00-9:30</b>	Simulating Social Influence based on Real-World Geographic Data: Emergent Narratives and Hypotheses Testing	Chris Martens, North Carolina State University
<b>9:30-9:40</b>	<b>BREAKOUT</b>	
<b>9:40-10:10</b>	Robot Compromise	Gerald Matthews, George Mason University, Jinchao Lin, University of Central Florida, Antonio Chella, University of Palermo, April Rose Panganiban, Air Force Research Laboratory
<b>10:10-10:40</b>	Detecting and Mitigating Adversarial Influence Operations in Networks	Kristina Lerman, University of Southern California
<b>10:40-11:00</b>	<b>BREAK</b>	
<b>11:00-11:30</b>	Supporting Trust Calibration and Attention Management in Human-Machine Teams	Nadine Sarter, Regents of The University of Michigan

<b>11:30-12:00</b>	Working with or around You? Investigating Team Growth and Adaptation with a Cooperative Machine Agent	Gregory Funke 711 Human Performance Wing (711th HPW) (AFRL/RH)
<b>12:15-1:00</b>	<b>LUNCH</b>	
<b>1:00-1:30</b>	Science Genome: A Scholarly Graph Embedding Framework to Uncover the Fundamental Dynamics of Scientific Enterprise	YY Ahn, Indiana University
<b>1:30-2:00</b>	Distilling Lessons from the Science of Science	Dashun Wang, Northwestern University
<b>2:00-2:30</b>	Quantifying Hierarchy and Dynamics in U.S. Faculty Hiring and Retention	Daniel B. Larremore, University of Colorado Boulder with K. Hunter Wapman, Katie Spoon, Nicholas LaBerge, Sam Zhang, Allison C. Morgan, Mirta Galesic, and Aaron Clauset
<b>2:30-2:45</b>	<b>BREAK</b>	
<b>2:45-3:15</b>	Economic Interdependence and National Security in the 21st Century	Erik Gartzke, University of California, San Diego and David Sacko, US Air Force Academy
<b>3:15-3:45</b>	Moral Agency in Robot-Human Interactions (MARIA): Perceptions, Trust, and Influence	Jaime Banks, Texas Tech
<b>3:45-4:15</b>	Tentative	
<b>4:15</b>	Wrap up	
	<b>MEETING ADJOURN</b>	