

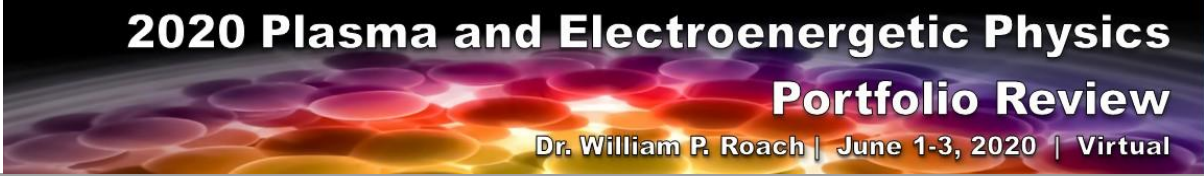
2020 Plasma and Electroenergetic Physics Portfolio Review

Dr. William P. Roach | June 1-3, 2020 | Virtual

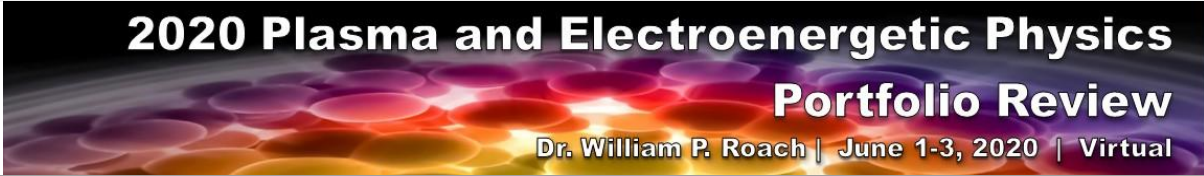
Agenda Day 1 | June 1, 2020

Time	Topic	Speaker
0830-0850	Registration	
0850-0900	Introduction	Col Jason B. Mello, AFOSR
0900-0930	Modeling of Ultrafast High-Current Electron Beam Transport in Air	Dr. Alexander Thomas University of Michigan
0930-1000	Nonequilibrium Electron and Phonon Thermal Transport Driven by External Fields and Plasmas	Dr. Patrick Hopkins University of Virginia
1000-1030	Laser Cooling a Strongly Coupled Plasma	Dr. Thomas Killian Rice University
1030-1045	BREAK	
1045-1115	Understanding Ultrafast and Nanoscale Electron Emission and Transport	Dr. Peng Zhang Michigan State University
1115-1145	Measurement of Extremely Magnetized Electron-Ion Collision Rates in Ultracold Neutral Plasmas	Dr. Jacob Roberts Colorado State University
1145-1215	Progress on the Design and Construction of the ALPHA Electromagnet to Investigate Magnetized Plasmas and Dusty Plasmas	Dr. Carlos Romero-Talamas University of Maryland, Baltimore County
1215-1245	Characterizing Hypervelocity Impact Plasmas and Effects on Spacecraft	Dr. Sigrid Close Stanford University
1245-1330	LUNCH	
1330-1400	Ion Thermalization in Strongly Coupled Neutral Plasmas	Dr. Scott Bergeson Brigham Young University
1400-1430	Transport in Magnetized Correlated Plasmas	Dr. C. Fred Driscoll UCSD Physics
1430-1500	Study of Propagation Stability and Generation of Plasma by Ultrashort Relativistic Electron Bunches	Dr. Jennifer Elle AFRL
1500-1515	BREAK	
1515-1545	Momentum Coupling in Magnetized Plasmas	Dr. David Cooke AFRL
1545-1615	Critical Ionization Velocity and Positive Probes in ExB Drifting Plasmas	Dr. Remington Reid AFRL
1615-1645	Plasma-Enhanced Catalysis: A Detailed Study of Surface Interactions Between Low- Temperature Plasma and Catalytic Materials	Dr. David Go University of Notre Dame

1645-1715	Multipactor and Breakdown Susceptibility and Mitigation in Space-Based RF Systems	Dr. John Verboncoeur Michigan State University
1715-1800	Adjourn with Final Remarks	Dr. William P. Roach
1800-1815	Reviewer Caucus	

		
Agenda Day 2 June 2, 2020		
Time	Topic	Speaker
0830-0850	Registration	
0850-0900	Introduction	Dr. William P. Roach , AFOSR
0900-0930	Title Not Available	Dr. Joel Lebowitz Rutgers University
0930-1000	Theory of AC Contact Resistance	Dr. Yue-Ying Lau University of Michigan
1000-1030	High Power Recirculating Planar Amplifiers	Dr. Ronald Gilgenbach University of Michigan
1030-1045	BREAK	
1045-1115	Title Not Available	Dr. Timothy Clarke AFRL/RDHE
1115-1145	Increasing Pulse Length and Repetition Rate of Relativistic Magnetrons and MILO	Dr. Edl Schamiloglu University of New Mexico
1145-1215	Plasmon Polariton Enhanced Radiative Thermal Transport with Electromagnetic Metamaterials and Near-field Effect	Dr. Liping Wang Arizona State University
1215-1245	Rydberg-Rydberg Spectroscopy of the Nitric Oxide Molecular Ultracold Plasma: Fano lineshapes and Intermolecular Energy Transfer	Dr. Ed Grant University of British Columbia
1245-1330	LUNCH	
1330-1400	Center of Excellence on the Science of Electronics in Extreme Electromagnetic Environments	Dr. Edl Schamiloglu University of New Mexico

1400-1430	Measurements and Applications of Strongly-Correlated Plasmas Generated in Dense Noble Gases	Dr. Seth Putterman UCLA
1430-1500	A Unified, Universal Model for Electron Emission and Breakdown	Dr. Allen Garner Purdue University
1500-1515	BREAK	
1515-1545	Crossed-Field Device Physics In Perturbed Systems --Overview	Dr. Jim Browning Boise State University
1545-1615	Crossed-field device physics in perturbed systems: Theory and simulation	Dr. Allen Garner Purdue University
1615-1645	Cross-Field Device Physics in Perturbed Systems - Experiments	Dr. Akintunde Akinwande MIT
1645-1700	Adjourn with Final Remarks	Dr. William P. Roach
1700-1716	Reviewer Caucus	

		
Agenda Day 3 June 3, 2020		
Time	Topic	Speaker
0830-0850	Registration	
0850-0900	Introduction	Dr. William P. Roach , AFOSR
0900-0930	Advanced Spectroscopic Studies of Nanosecond Pulsed Microplasmas	Dr. Chunqi Jiang Old Dominion University
0930-1000	Title Not Available	Dr. R. Mohan Sankaran Case Western Reserve University
1000-1030	Investigation of Interface Processes Between Colliding Plasma Flows	Dr. Vladimir Sotnikov AFRL
1030-1045	BREAK	
1045-1115	Study of High Power Microwave Amplification Driven by Energetic Electron Beams	Dr. David Simon AFRL
1115-1145	Recent AFRL/NRL Electron Emission Studies	Capt Joseph Connelly AFRL/RDH

1145-1215	Chemistry and Dynamics of Pre-Ionization Controlled Laser Plasmas	Dr. Azer Yalin Colorado State University
1215-1245	Towards Understanding Cross-field Electron Transport in Low-temperature Magnetized Plasmas	Dr. Ken Hara Stanford University
1245-1330	LUNCH	
1330-1400	Computational Non-Ideal Plasma Physics	Dr. Michael Murillo Michigan State University
1400-1430	High Power Oscillators and Amplifiers using Novel Concepts of Multiple-Degenerate Eigenwaves all Synchronized with an Electron Beam	Dr. Filippo Capolino University of California, Irvine
1430-1500	Studies of Electrode-Plasma Effects on Breakdown at RF Frequencies	Dr. Ravi Joshi Texas Tech University
1500-1515	BREAK	
1515-1545	Effect of Current Sheath Initiation on the Radial Collapse and Energetic Particle Acceleration in Dense Plasma Focus	Dr. Farhat Beg University of California San Diego
1545-1615	Update on Nonlinear Transmission Lines Research at INPE	Dr. Jose Rossi National Institute for Space Research -INPE
1615-1645	Empty Space Electronics	Dr. Akintunde Akinwande MIT
1645-1700	Adjourn with Final Remarks	Dr. William P. Roach
1700-1717	Reviewer Caucus	