

Laser and Optical Physics Portfolio Annual Review 2015

Dr. John Luginsland | December 2-3, 2015 | Arlington, VA

Basic Research Innovation and Collaboration Center (BRICC)
4075 Wilson Blvd., Suite 350 | Liberty Room
Arlington, VA 22203

Agenda Day One | December 2, 2015

Time	Title	Speaker
7:30-8:00	Registration	
8:00-8:15	Welcome and Programatics	Luginsland (AFOSR)
8:15-8:40	Brillouin Scattering Induced Transparency for Microscale Rotation Sensing/Chip-Scale Linear Non-Reciprocal Optomechanical Systems	Bahl, Gaurav (UIUC)
8:40-9:05	Compact Laser-Driven Dielectric Accelerator for Future X-Ray Lasers	Byer, Robert (Stanford)
9:05-9:30	High Power Fiber Lasers Utilizing Intermodal Nonlinearity	Ramachandran, Siddharth (Boston U)
9:30-9:55	BREAK	
9:55-10:20	Hollow Core Optical Fiber Gas Lasers	Corwin, Kristan (Kansas State University)
10:20-10:45	Suppression of Modal Instabilities and Stimulated Brillouin Scattering	Flores, Angel (AFRL/RD)
10:45-11:10	Fibers and Pulse Combination for Super-linear Power Scaling	Nilsson, Johan (U of Southampton, UK)
11:10-11:35	Advanced Mid-IR Fiber Lasers	Fuerbach, Alex (Macquarie U, Australia)
11:35-12:50	LUNCH	
12:50-13:15	Basic Studies on Future Airborne Laser Weapon Systems	Tiller, John (John Tiller Software)
13:15-13:40	Unified laser Modeling for the Air Force	Meiser, Dominic (Tech-X Corp)
13:40-14:05	Integrated Nonlinear Photonics Platform for the Mid-Infrared	Gopinath, Juliet (U Colorado Boulder)
14:05-14:30	Orientation-Patterned Quasi-Phasematched Devices	Tassev, Vladimir (AFRL/RV)
14:30-14:55	BREAK	
14:55-15:20	Photonic-integrated Multifunctional Organic Field-effect Transistor for Sensing and Optical Application	Toffanin, Stefano (National Research Council of Italy)

15:20-15:45	Towards the Development of High Power 2um Fibre Lasers	Wu, Lorinda (Council for Scientific and Industrial Research, South Africa)
15:45-16:10	Bulk Mid-infrared Laser Source Development	Koen, Wayne (Council for Scientific and Industrial Research, South Africa)
16:10-16:35	Fs Fiber Laser and 3D Laser Manufacturing	Liu, Jian (Polaronyx)
16:35-17:00		
1700	MEETING ADJOURNED FOR THE DAY	

Agenda Day Two December 3, 2015		
Time	Title	Speaker
7:30-8:00	Registration	
8:00-8:25	Coherent, Efficient and Practical Polariton Lasers Using a Designable Cavity	Deng, Hui (U of Michigan)
8:25-8:50	Novel Strategies for Increasing Efficiency in $\lambda > 2.5\mu\text{m}$ Mid-IR Quantum Well laser Diodes	Yang, Chi (AFRL/RD)
8:50-9:15	Power and Brightness Enhancement Strategies in Mid-IR and Long-IR Semiconductor Lasers	Kaspi, Ron (AFRL/RD)
9:15-9:40	Scaling Diamond Raman Lasers and Beam Combiners into the Kilowatt	Mildren, Richard (Macquarie U, Australia)
9:40-10:05	BREAK	
10:05-10:30	Advanced Photonics: Science, Technologies and Applications	Ippen, Erich (MIT)
10:30-10:55	Fundamental Fiber Laser Science for High Powers	Richardson, Martin (UCF)
10:55-11:20	Waveguide Lasers in the Visible and Ultraviolet	Eden, J Gary (UIUC)
11:20-11:45	Compact Terawatt Carbon Dioxide Laser	Gordon, Dan (NRL)
11:45-1300	LUNCH	
13:00-13:25	Studies in Raman Compression	Fisch, Nathaniel (Princeton)
13:25-13:50	Fundamental Investigation of the Host Shift Mechanism	Pitz, Greg (AFRL/RD)
13:50-14:15	Basic Studies on Processing of Transparent Laser Ceramics	Wu, Yiquan (Alfred University)
14:15-14:40	Synthesis of Doped Transparent Ytterbia Doped Lutetia for High Power Laser Applications	Speyer, Robert (Ga Tech)
14:40-15:05	Innovative Production of New Highly Transparent Ceramic Materials for Future Air Force Applications	Ravichandran, D (Texas Biochemicals, Inc)
15:05-15:30		
15:30-15:55		
15:55-16:20		
16:20-16:45		
1700	MEETING ADJOURNED	