

Sunday, 3 April 2016			
Time TBD	New Mexico History Museum Tour		
1500 - 1800	Early Registration		
Monday, 4 April 2016			
0700 - 0800	Light Continental Breakfast		
0700 - 1700	Registration Open		
1200 - 1630	Poster & Table-Top Exhibit Set-Up		
1700 - 1830	Posters & Exhibits Open		
Welcome Reception & Poster & Exhibit Technical Interchange			
Welcome & Keynote			
Lumpkins Ballroom North			
0800 - 0815	Welcome & Administrative Announcements Symposia Chair, Dr. Claude Phipps, Photonic Associates, LLC		
0815 - 0820	Keynote Introduction Dr. Leonid Zhigilei, University of Virginia		
0820 - 0900	Keynote Presentation: Femtosecond X-Ray and Electron Studies of Materials under Extreme Strains Prof. Aaron Lindenberg, Stanford University, SLAC National Accelerator Laboratory <i>[Invited]</i>		
Track One Lumpkins Ballroom North Fundamental Physics		Track Two Lumpkins Ballroom South Microwave and Laser Power Beaming	
0900 - 0905	Announcements & Session Introduction Session Co-Chair: Dr. Leonid Zhigilei, University of Virginia	0900 - 0905	Announcement & Session Introduction Session Chair: Dr. Kevin Parkin, Parkin Research, LLC
0905 - 0930	Ultrafast Laser Produced Non-Equilibrium Warm Dense Gold Dr. Ying Tsui, University of Alberta <i>[Invited]</i>	0905 - 0930	Power Beaming Applications in the Real World Dr. Jordin Kare, LaserMotive, Inc. <i>[Invited]</i>
0930 - 0955	To be Announced	0930 - 0955	The Simple Comparative Propellant Performance Model (SCPPM) Version 1.2 Dr. Kevin Parkin, Parkin Research, LLC <i>[Invited]</i>
0955 - 1020	Cold Ablation Regimes under Ultrafast Laser Irradiation of Dielectric Materials Prof. Nadezhda Bulgakova, HiLASE Centre, Institute of Physics AS CR <i>[Invited]</i>	0955 - 1020	Super Narrow Beams of Infrared Radiation for Remote Power Supply Dr. Vjacheslav Tugaenko, Rocket and Space Corporation "Energia" <i>[Invited]</i>
1020 - 1050	Break		
	Introductions Session Co-Chair: Dr. Nadezhda Bulgakova, HiLASE Centre of the Institute of Physics AS CR	1050 - 1115	Thrust Performance Improvement of Microwave Rocket by Magnetic Field Dr. Masayuki Takahashi, Tohoku University <i>[Invited]</i>
1050 - 1115	Ultrafast and Steady-State Laser Heating Effects on Hot Electron-Phonon Relaxation and Damage of Thin Metal Films Prof. Patrick Hopkins, University of Virginia <i>[Invited]</i>		
1115 - 1140	From Ripples to Spikes: A Hydro-Dynamical Physical Mechanism to Interpret Femtosecond Laser Induced Self-Assembled Structures Dr. George Tsididis, Inst. of Electronic Structure and Laser - FORTH <i>[Invited]</i>	1115 - 1140	To be Announced
1140 - 1155	Electron-Lattice Equilibration in Laser-Excited Thin Bismuth Films Studied by Ultrafast MeV Electron Diffraction Dr. Klaus Sokolowski-Tinten, University of Duisburg-Essen <i>[Selected]</i>	1140 - 1155	Vaporization of Frozen Matter on Icy Moons using an Orbiting Laser Mr. Martin Kossagk, Institute for Aerospace Engineering, TU Dresden <i>[Selected]</i>
1155 - 1210	Peta-Exawatt Laser Pulses for Environmentally Clean and Economic Solving the Energy Problem by Boron Fusion Prof. Heinrich Hora, University of New South Wales <i>[Selected]</i>	1155 - 1210	Mass Ratio Capabilities of Earth-Launch Microwave Propulsion Dr. Donald Johansen, EMF Kinetics <i>[Selected]</i>
1155/1210 - 1330	Lunch Break - On Your Own		
Track One Lumpkins Ballroom North Fundamental Physics, cont.		Track Two Lumpkins Ballroom South Advanced BEP Propulsion Concepts	
1330 - 1335	Announcements & Introductions Session Co-Chair: Prof. Patrick Hopkins, University of Virginia	1330 - 1335	Announcements & Session Introduction Session Chair: Prof. Naofumi Ohnishi, Tohoku University
1335 - 1400	Phonons Properties of Two Temperature Metals Dr. Vanina Recoules, CEA/DAM-DIF <i>[Invited]</i>	1335 - 1400	High-Power Lasers versus Low-Power LEDs for Space Propulsion Applications Prof. Hideyuki Horisawa, Tokai University <i>[Invited]</i>
1400 - 1425	Pressure, Ionization and Effective Ion-Ion Interaction in Electronically Excited Warm Dense Metals Dr. Vladimir Stegailov, Joint Institute for High Temperatures of Russian Academy of Sciences <i>[Invited]</i>	1400 - 1425	Prospects for Directed Energy Planetary Defense and Interstellar Probes Prof. Philip Lubin, University of California, Santa Barbara <i>[Invited]</i>
1425 - 1450	Probing Temporal and Spatial Properties of Electronic Excitation in Dielectrics after Interaction with Temporally Shaped Femtosecond Laser Pulses Mr. Thomas Winkler, University of Kassel - Institute for Physics and CINSaT <i>[Invited]</i>	1425 - 1450	Demonstration of a mN-Class Photonic Laser Thruster Dr. Young Bae, Y.K. Bae Corporation <i>[Invited]</i>
1450 - 1515	Shock Compression of Tantalum to Strain Rates of 10^9 s^{-1} Dr. Jonathan Crowhurst, Lawrence Livermore National Laboratory <i>[Invited]</i>	1450 - 1515	Laser Propulsion Demonstration Mr. Edward Montgomery IV, Retired NASA <i>[Invited]</i>
1515 - 1545	Break		

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	Track One Lumpkins Ballroom North Fundamental Physics, cont.		Track Two Lumpkins Ballroom South Advanced BEP Propulsion Concepts, cont.
	Introductions Session Co-Chair: Dr. George Tsididis, Inst. of Electronic Structure and Laser - FORTH		Introductions Session Chair: Prof. Naofumi Ohnishi, Tohoku University
1545 - 1600	Energy Relaxation of Non-Equilibrium Electrons in Laser-Excited Solids Prof. Baerbel Rethfeld, Technical University Kaiserslautern <i>[Selected]</i>	1545 - 1600	Structure Formation of Atmospheric Discharge by Undercritical Microwave Beam Dr. Naofumi Ohnishi, Tohoku University <i>[Selected]</i>
1600 - 1615	Laser-Induced Photoionization: Atoms vs Solids Dr. Vitaly Gruzdev, University of Missouri <i>[Selected]</i>	1600 - 1615	Laser Intensity and LSD Wave Propagation Velocity in a Large Diameter Beam Mr. Kohei Matsui, The University of Tokyo <i>[Selected]</i>
1615 - 1630	Ultrafast Laser Induced Transition Infused Silica from Solid to Plasma State Dr. Guillaume Duchateau, CELIA <i>[Selected]</i>	1615 - 1640	Use of Microwave Rocket for the First Stage of a Launch Vehicle Mr. Masafumi Fukunari, The University of Tokyo <i>[Invited]</i>
1630 - 1645	Plasma Dynamics in Femtosecond Laser Ablation of Dielectrics Mr. Weibo Cheng, University of Arizona <i>[Selected]</i>		
1645 - 1700	Laser Space Debris Cleaning: Elimination of Detrimental Self-Focusing Effects Dr. Alexander Rubenchik, Lawrence Livermore National Laboratory <i>[Selected]</i>	1640 - 1705	Combined Supersonic Airbreathing Laser Propulsion Dr. Yuri Rezunov, Research Institute for Optic-Electronic Engineering <i>[Invited]</i>
1700/1705 - 1830	Welcome Reception & Poster & Exhibit Technical Interchange		
Tuesday, 5 April 2016			
0700 - 0800	Light Continental Breakfast		
0700 - 1700	Registration Open		
Welcome & Keynote			
0800 - 0805	Administrative Announcements, & Keynote Introduction Dr. Thierry Sarnet, LP3 CNRS Aix Marseille University		
0805 - 0845	Keynote: History of Ultra Intense Lasers Prof. Gérard Mourou, IZEST, Ecole Polytechnique <i>[Invited]</i>		
	Track One Lumpkins Ballroom North Ultrashort Pulse Lasers and Effects		Track Two Lumpkins Ballroom South Fundamentals of Laser Ablation and Nanoparticle Formation in Liquids
0845 - 0850	Session Introduction Session Chair: Dr. Klaus Sokolowski-Tinten, University of Duisburg-Essen	0845 - 0850	Session Introduction Session Chair: Dr. Bilal Goecke, University of Duisburg-Essen
0850 - 0915	Advances in High Repetition Rate Ultrafast Lasers - Novel Avenues in Science and Industry Prof. Andreas Tunnermann, Fraunhofer IOF <i>[Invited]</i>	0850 - 0915	High Power Ultrafast Laser Ablation in Liquids: Fundamentals and Applications Dr. Bilal Goecke, University of Duisburg-Essen <i>[Invited]</i>
0915 - 0940	Ultrashort-Pulse Laser Excitation of Dielectric Materials – Experiments and their Interpretation by Modeling Dr. Peter Balling, Aarhus University <i>[Invited]</i>	0915 - 0940	Cavitation Bubble Dynamics and Nanoparticle Size Distributions in Laser Ablation in Liquids Prof. Danny Bubb, Rutgers University - Camden <i>[Invited]</i>
0940 - 1005	In Situ X-Ray Diffraction of Laser Shock-Driven Deformation and Phase Transition in Titanium Dr. Cindy Bolme, Los Alamos National Laboratory <i>[Invited]</i>	0940 - 0955	Laser Ablation in Liquids of Germanium in Externally Applied Electric Fields Mr. Yilu Li, University of Missouri-Kansas City <i>[Selected]</i>
			Research Facilities and Measurement Techniques
1005 - 1030	Ultrafast Laser-Induced Confined Microexplosion: Experimental Evidence of New Tetragonal Polymorphs of Silicon Dr. Ludovic Rapp, FEMTO-ST Institute <i>[Invited]</i>	0955 - 1000	Session Introduction Session Chair: Dr. Hans-Albert Eckel, DLR
		1000 - 1025	Measuring High Power Laser Output using Radiation Pressure: A New Paradigm Dr. Brian Simonds, National Institute of Standards and Technology <i>[Invited]</i>
1030 - 1055	Pulse Length Dependence on Filament Guided Discharge in Air: Extension to 10 ps Dr. Andreas Schmitt-Sody, Air Force Research Laboratory <i>[Invited]</i>	1025 - 1040	Laser Plasma Generators Supply Systems Based on Special Media Properties Dr. Egor Loktionov, Bauman Moscow State Technical University <i>[Selected]</i>
		1040 - 1055	Microwave Probing of Laser Induced Plasmas and Shock Waves Dr. Benjamin Rock, Naval Research Laboratory <i>[Selected]</i>
1055 - 1125	Break		
	Track One Lumpkins Ballroom North Ultrafast Materials Processing		Track Two Lumpkins Ballroom South Space Debris Removal and Beyond
1125 - 1130	Session Introduction Session Chair: Prof. Richard Haglund, Vanderbilt University	1125 - 1130	Session Introduction Session Chair: Prof. Willy Bohn, Bohn LaserConsult
1130 - 1155	Kinetics of fs-Laser Induced Thermal Transients in the Volume of Technical Glasses Dr. Alexandre Mermillod-Blondin, Max Born Institute <i>[Invited]</i>	1130 - 1155	Space Environment Research Corporation - A New Initiative of Australian Space Tracking Mr. Steven Gehly, Royal Melbourne Institute of Technology <i>[Invited]</i>
1155 - 1220	Fundamental Studies of Ultrafast Laser Interaction with Dielectrics for Efficient Micromachining Dr. Marc Sentis, CNRS - AMU <i>[Invited]</i>	1155 - 1220	Challenges Facing Long Distance Propagation of High Power Laser Beams Prof. Martin Richardson, University of Central Florida <i>[Invited]</i>
1220 - 1245	Spot Size and Pulse Number Dependence of Femtosecond Laser Modification and Ablation Thresholds Prof. Dr. Wolfgang Kautek, University of Vienna <i>[Invited]</i>	1220 - 1245	Orbital Debris 101 for Laser Ablation Experts Mr. Joseph Carroll, Tether Applications, Inc. <i>[Invited]</i>
1245 - 1300	Control of Stress and High Aspect Ratio Voids in Sapphire and Glass Using Femtosecond Bessel Beams Dr. Francois Courvoisier, CNRS- FEMTO-ST Institute <i>[Selected]</i>	1245 - 1300	Laser-Based Removal of Irregularly Shaped Space Debris Dr. Stefan Scharring, German Aerospace Center (DLR), Institute of Technical Physics <i>[Selected]</i>
1300 - 1430	Lunch Break - On Your Own		

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	Track One <i>Lumpkins Ballroom North</i>		Track Two <i>Lumpkins Ballroom South</i>
	Ultrafast Materials Processing, cont.		Laser Ablation Propulsion: Macro & Micro
1430 - 1435	Announcements & Introductions Session Chair: Prof. Richard Haglund, Vanderbilt University	1430 - 1435	Announcements & Session Introduction Session Chair: Dr. Yuri Reznikov, Research Institute for Optic-Electronic Engineering
1435 - 1500	Ultrafast Laser Written 3D Integrated Photonics Components and Devices Dr. Alexander Fuerbach, Macquarie University <i>[Invited]</i>	1435 - 1500	Binary Asteroid Manipulation with Laser Ablation Prof. Massimiliano Vasile, University of Strathclyde <i>[Invited]</i>
1500 - 1525	From Modeling-Based Understanding of Ultra-Short Laser Interaction with Glasses to Better Control Over Laser Nano- and Micro-Machining in Volume Dr. Tatiana Itina, Hubert Curien Lab, UMR CNRS <i>[Invited]</i>	1500 - 1525	Experimental Study on Propulsion Performance of Laser Ablated Gel Propellant Mr. Nanlei Li, Equipment Academy <i>[Invited]</i>
1525 - 1540	Below and Above Surface Growth Mechanisms of Multiscale Structures by Femtosecond Laser Surface Processing on Polycrystalline Ni60Nb40 Mr. Edwin Peng, University of Nebraska-Lincoln <i>[Selected]</i>	1525 - 1540	Thrust Noise Minimization in Long-Term Laser Ablation of Propellant Material in the Nanosecond and Picosecond Regime Dr. Raoul-Amadues Lorbeer, German Aerospace Center (DLR), Institute of Technical Physics <i>[Selected]</i>
	Advances in Microstructured Optical Fibers and Fiber Lasers	1540 - 1555	Laser Ablation Impulse for Tumbling Control of Space Objects Dr. Bin Wang, Nagoya University <i>[Selected]</i>
1540 - 1545	Session Introduction Session Chair: Prof. Liang Dong, Clemson University		
1545 - 1610	Light Filamentation and Free Space Metamaterials Dr. Wiktor Walasik, University at Buffalo, The State University of New York <i>[Invited]</i>	1555 - 1610	One-Dimensional Particle Simulation on Laser-Supported Detonation Wave Dr. Kohei Shimamura, University of Tsukuba <i>[Selected]</i>
1610 - 1635	Metamaterials for Advanced High Power Microwaves: From Sources to Beaming Prof. Edl Schamiloglu, University of New Mexico <i>[Invited]</i>	1610 - 1625	Characterization of the Dynamics of Plasma Produced by Projectile Impact and Laser Impact using Time Mr. Dominic Heunoske, Fraunhofer EMI <i>[Selected]</i>
1635/1625 - 1730	Break & Poster & Exhibit Technical Interchange		
Wednesday, 6 April 2016			
0700 - 0800	Light Continental Breakfast		
0700 - 1600	Registration Open		
	Welcome & Keynote <i>Lumpkins Ballroom North</i>		
0800 - 0805	Administrative Announcements, & Keynote Introduction Dr. Baerbel Rethfeld, University of Kaiserslautern		
0805 - 0845	Keynote: Fiber Laser Review Dr. Fabio Di Teodoro, Raytheon Space and Airborne Systems <i>[Invited]</i>		
	Track One <i>Lumpkins Ballroom North</i>		Track Two <i>Lumpkins Ballroom South</i>
	Theory and Simulation		Nanoengineering & Materials Processing
0845 - 0850	Announcements & Session Introduction Session Co-Chair: Dr. Baerbel Rethfeld, University of Kaiserslautern	0845 - 0850	Announcements & Session Introduction Session Chair: Prof. Dr. Wolfgang Kautek, University of Vienna
0850 - 0915	Self-Consistent Modeling of Photoionization and Nonlinear Optics in Dielectrics Dr. Jeremy Gulley, Kennesaw State University <i>[Invited]</i>	0850 - 0915	Laser Induced Periodic Surface Structures of Thin, Complex Multi-Component Films Prof. Dr. Juergen Reif, BTU Cottbus-Senftenberg <i>[Invited]</i>
0915 - 0940	First-Principle Modeling of Overcritical Plasma Formation by Ultrashort Pulses and High-Intensity Nanoplasmonics Dr. Anton Husakou, Max Born Institute <i>[Invited]</i>	0915 - 0940	Surface Structuring in the Regime of High-Density Electronic Excitation Dr. Andrei Kanaev, LSPM CNRS <i>[Invited]</i>
0940 - 1005	Non-Equilibrium Processes within X-Ray FEL Generated Plasmas Prof. Dr. Beata Ziaja-Motyka, CFEL, DESY <i>[Invited]</i>	0940 - 1005	Ultrafast Laser Direct Nano-Fabrication as 4D Optical Printing Dr. Mangirdas Malinauskas, Vilnius University <i>[Invited]</i>
1005 - 1030	The Effect of Crystallographic Orientation on Laser-Induced Generation of Crystal Defects in Metals Mr. Maxim Shugaev, University of Virginia <i>[Invited]</i>	1005 - 1030	Study on Plasma Immersion Ion Implantation and Laser Annealing for Sulphur Hyperdoped Black Silicon Dr. Thierry Sarnet, LP3 CNRS Aix Marseille University <i>[Invited]</i>
1030 - 1100	Break		

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	Introductions Session Co-Chair: Dr. Tatiana E. Itina, Laboratoire Hubert Curien, CNRS, Saint-Etienne	1100 - 1125	Laser Direct Write at the Solid/Liquid Interface: Bridging Solution-Based Chemistry to Additive Manufacturing Dr. Bryan Kaehr, Sandia National Laboratories <i>[Invited]</i>
1100 - 1125	Laser Ablation of Al-Ni Alloys and Al-Ni Layer Systems Simulated with Molecular Dynamics and the Two-Temperature Model Dr. Johannes Roth, University of Stuttgart, Institute for Functional Materials and Quantum Technologies <i>[Invited]</i>		
1125 - 1140	To be Announced	1125 - 1140	Simulations and Experiments on Microstructure Evolution in Nanosecond Laser Melting and Resolidification of Silicon Mr. Miao He, University of Virginia <i>[Selected]</i>
1140 - 1155	Atomistic Simulations of Short Pulse Laser-Metal Interactions in Liquid Environment Dr. Leonid Zhigilei, University of Virginia <i>[Selected]</i>	1140 - 1155	Manufacturing Processes and Nanomaterials for High-Purity Laser Ceramics Dr. Andrew Hunt, nGimat Co. <i>[Selected]</i>
1155 - 1210	Numerical Study of Laser Ablation on Pure Aluminum for Shock Waves Applications – Development of a Suitable Model by Comparison with Recent Experiments Mr. Simon Bardy, CEA-DAM-DIF <i>[Selected]</i>	1155 - 1210	Picosecond Laser Micromachining for Electronic Microscopy Sample Preparation Dr. Aurélien Sikora, LP3 <i>[Selected]</i>
1210 - 1330	Lunch Break - On Your Own		
	Track One <i>Lumpkins Ballroom North</i> Promising New Laser and Optical Technologies		Track Two <i>Lumpkins Ballroom South</i> MAPLE and Materials Processing
1330 - 1335	Session Introduction Session Chair: Dr. Thierry Sarnet, LP3 CNRS Aix Marseille University	1330 - 1335	Session Introduction Session Chair: Prof. Adrienne Stiff-Roberts, Duke University
1335 - 1400	Investigation on the Optimal Pumping Parameters for DPAL and XPAL Prof. Rongqing Tan, Chinese Academy of Sciences <i>[Invited]</i>	1335 - 1400	MAPLE Deposition of Nano-Entities and Composite Nanomaterials Dr. Enikő György, CSIC-ICMAB <i>[Invited]</i>
1400 - 1425	Optical Technologies: Interference Coatings for High Power Lasers Operating at Wavelengths in the 1-2 μm Range Prof. Carmen Menoni, Colorado State University <i>[Invited]</i>	1400 - 1425	Solar Cell Materials Deposited using Emulsion-Based, Resonant Infrared, Matrix-Assisted Pulsed Laser Prof. Adrienne Stiff-Roberts, Duke University <i>[Invited]</i>
1425 - 1450	Evaluation of Temperature Distribution of a Diode-Pumped Alkali Vapor Cell Prof. You Wang, Southwest Institute of Technical Physics <i>[Invited]</i>	1425 - 1450	Status of Commercial Scale PLD and MAPLE Technology Dr. James Greer, PVD Products, Inc. <i>[Invited]</i>
1450 - 1515	High Power Lasers for Arctic New Applications for High Rep. rated High Energy P-P Lasers Prof. Victor Apollonov, Prokhorov GPI RAS <i>[Invited]</i>	1450 - 1515	Pulsed Laser Deposited Crystalline Optical Waveguides for Thin-Film Lasing Devices Prof. Robert Eason, University of Southampton <i>[Invited]</i>
1515 - 1540	Lasing in the Sky Prof. Andre Mysyrowicz, LOA ENSTA <i>[Invited]</i>	1515 - 1540	Fundamentals of Laser Induced Functionalization of Nanomaterials through Reductive Sintering and Crystallization Prof. Costas Grigoropoulos, University of California at Berkeley <i>[Invited]</i>
1540 - 1555	Plasmonic Organic Light-Emitting Diode: Toward Organic Laser Diode under Electrical Pumping Prof. Azzedine Boudrioua, LPL CNRS <i>[Selected]</i>	1540 - 1605	Why Quantitative Analysis of Thin Films Deposited by Pulsed Laser Deposition Is Needed Prof. Thomas Lippert, Paul Scherrer Institut <i>[Invited]</i>
1555/1605 - 1700	Break & Poster & Exhibit Technical Interchange Final Poster Voting		
1700 - 1830	Poster & Table-Top Tear-Down		
1830 - 2130	Dinner with Entertainment <i>La Terraza Room</i> Poster Award Winner Announcements at 1840		

Thursday, 7 April 2016			
0700 - 0800	Light Continental Breakfast		
0700 - 1600	Registration Open		
Welcome & Keynote			
0800 - 0805	Administrative Announcements, & Keynote Introduction Prof. Andrey Ionin, Lebedev Physical Institute of Russian Academy of Sciences		
0805 - 0845	Keynote: Review of History and Current State of DPAL Research and Development Dr. Boris Zhdanov, U.S. Air Force Academy <i>[Invited]</i>		
	Track One <i>Lumpkins Ballroom North</i> New Results in High Power Lasers and Their Applications	Track Two <i>Lumpkins Ballroom South</i> Laser Direct Writing	Track Three <i>Santa Fe Room</i> Directed Energy Workshop (Restricted Attendance)
0845 - 0850	Announcements & Session Introduction Session Chair: Prof. Andrey Ionin, Lebedev Physical Institute of Russian Academy of Sciences	0845 - 0850	Announcements & Session Introduction Session Chair: Dr. Alexandra Palla-Papavlu, National Institute for Laser, Plasma & Radiation Physics (INFLPR)
0850 - 0915	The DiPOLE Laser - Efficiently Delivering High Energy Pulses at kW Average Powers Dr. Ric Allott, STFC Rutherford Appleton Laboratory <i>[Invited]</i>	0850 - 0915	Toward 3D Printing of Pure Metals by Laser-Induced Forward Transfer Dr. Claas Visser, University of Twente <i>[Invited]</i>
0915 - 0940	Intense Ion and Neutron Beams from High Contrast Short Pulse Lasers Prof. Dr. Markus Roth, TU Darmstadt <i>[Invited]</i>	0915 - 0940	LIFT and MAPLE Deposition Techniques for the Development of Micro-Electromechanical Sensors Dr. Fabio Di Pietrantonio, Institute of Acoustics and Sensors - CNR <i>[Invited]</i>
0940 - 1005	Effective Volume Scribing of Sapphire Wafers by Dual-Wavelength Double-Pulse Picosecond Laser Irradiation Dr. Mindaugas Gedvilas, Center for Physical Sciences and Technology	0940 - 1005	Laser-Induced Forward Transfer of High Viscosity Inks Dr. Anne Alloncle, CNRS - LP3 <i>[Invited]</i>
1005 - 1030	Laser Ignited Boron Fusion with Nonlinear Force Driven Ultrahigh Accelerated Plasma Blocks Dr. George Miley, University of Illinois <i>[Invited]</i>	1005 - 1030	Laser Direct Write of Carbon Structures onto Flexible Substrates Dr. Alexandra Palla-Papavlu, National Institute for Laser, Plasma & Radiation Physics (INFLPR) <i>[Invited]</i>
0930 - 0955		0930 - 0955	Laser Diagnostics System for In-Situ, Real Time Measurement of Laser Power and Beam Profile on Airborne Targets Dr. Siavosh Hamadani, Scientific Applications and Research Associates <i>[Invited]</i>
0955 - 1020		0955 - 1020	Breakdown of Reciprocity for High Peak Power Laser Pulses Dr. John Palastro, Naval Research Laboratory <i>[Invited]</i>
1030/1020 - 1100	Break		

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1100 - 1125	Laser Shock Adhesion Test (LASAT) Applied to Piezochromic Paintings Dr. Michel Boustie, CNRS <i>[Invited]</i>	1100 - 1125	Laser Forward Transfer of Nanostructures: Towards Original Sensing Applications Dr. Mihaela Filipescu, National Institute for Laser, Plasma & Radiation Physics (INFLPR) <i>[Invited]</i>	1100 - 1125	High-Peak Power Laser Pulse Propagation in Distributed Turbulence Dr. Michael Helle, Naval Research Laboratory <i>[Invited]</i>
1125 - 1150	Numerical Investigation of LSD Wave Characteristics using a 1-D Laser-Induced Discharge Model Mr. Rei Kawashima, The University of Tokyo <i>[Invited]</i>	1125 - 1150	High Laser Pulse Repetition Rate Ablation of the CIGS Thin-Film Solar Cells Mr. Edgaras Markauskas, Center for Physical Sciences and Technology <i>[Invited]</i>	1125 - 1150	Generation of High Power, Sub-Picosecond Mid-Infrared Pulses using Backwards Raman Amplification Dr. Luke Johnson, Naval Research Laboratory <i>[Invited]</i>
1150 - 1205	Experimental and Computational Investigation of Pulsed Laser Induced Defects in Monocrystalline Silicon for Photovoltaic Applications Mr. Zeming Sun, University of Virginia <i>[Selected]</i>	1150 - 1215	Laser-Induced Ripple Formation on Stainless Steel Surface by Two-Colour Single- and Double-Pulsed Picosecond Irradiation Dr. Gediminas Raciukaitis, Center for Physical Sciences and Technology (FTMC) <i>[Invited]</i>	1150 - 1215	Presentation Title To Be Announced Dr. Richard Fischer, Naval Research Laboratory <i>[Invited]</i>
1205 - 1220	Research and Development a High-Performance Copper-Vapour Pulsed Lasers with Radiation Power up to 100 W for Precise Micromachining Prof. Mishik Kazaryan, P.N. Lebedev Physical Institute of the Russian Academy of Sciences <i>[Selected]</i>				
1220/1215 - 1400	Lunch Break - On Your Own				
	Track One <i>Lumpkins Ballroom North</i>		Track Two <i>Lumpkins Ballroom South</i>		Track Three <i>Santa Fe Room</i>
	Biological Applications		Workshop to Create a Strategic Roadmap to Commercialize Directed Energy Systems for Low-Cost Space Launches		Directed Energy Workshop, cont. (Restricted Attendance)
1400 - 1405	Announcements & Session Introduction Session Chair: Prof. Jack Yoh, Seoul National University	1400 - 1405	Announcements & Workshop Introduction Workshop Chairs: Prof. Jonathan Coopersmith, Texas A&M University and Dr. Eric Davis, Institute for Advanced Studies at Austin	1400 - 1405	Announcements & Introductions Mr. Mark Neice, DEPS
1405 - 1430	Ultrafast Laser Nanofabrication for Biological Applications Prof. Costas Grigoropoulos, University of California at Berkeley <i>[Invited]</i>	1405 - 1520	Workshop to Create a Strategic Roadmap to Commercialize Directed Energy Systems for Low-Cost Space Launches Prof. Jonathan Coopersmith, Texas A&M University and Dr. Eric Davis, Institute for Advanced Studies at Austin	1405 - 1430	Nonlinear Guiding of High-Peak Power Laser Pulses in Atmospheric Turbulence Dr. Richard Peñano, Naval Research Laboratory <i>[Invited]</i>
1430 - 1455	Multiscale Bone-Like Intelligent Interfaces Engineering using Laser Methods for Steering Mesenchymal Stem Cells Behaviour in vitro Dr. Valentina Dinca, National Institute for Laser, Plasma & Radiation Physics (INFLPR) <i>[Invited]</i>			1430 - 1455	High Power Picosecond Carbon Dioxide Laser based on Injection Seeded Unstable Resonator Dr. Richard Peñano, Naval Research Laboratory <i>[Invited]</i>
1455 - 1520	Laser Tattoo: Making Faster and Narrower Microjet using a Compact Hand-Held Er:YAG Laser at Shorter Pulse Duration for a Painless Skin Tattooing Prof. Jack Yoh, Seoul National University <i>[Invited]</i>			1455 - 1520	Broadband Radiofrequency and Terahertz Emissions from Femtosecond Filaments in Air Dr. Andreas Schmitt-Sody, Air Force Research Laboratory
1520 - 1550	Break				
	Phased Pulsed Fiber Laser Array Applications in Space	1550 - 1705	Workshop to Create a Strategic Roadmap to Commercialize Directed Energy Systems for Low-Cost Space Launches Prof. Jonathan Coopersmith, Texas A&M University and Dr. Eric Davis, Institute for Advanced Studies at Austin	1555 - 1620	Speaker to Be Announced
1550 - 1555	Session Introduction Prof. Gérard Mourou, IZEST, École Polytechnique				
1555 - 1620	Speaker to Be Announced				
1620 - 1645	Speaker to Be Announced			1620 - 1645	Speaker to Be Announced
1645 - 1700	Speaker to Be Announced			1645 - 1700	Speaker to Be Announced
1700	Symposia Adjourn				
1730 -->	Architectural & Ghost Walking Tour, followed by Dinner on Canyon Road				