

COLA 2019 Preliminary Program (as of May 29, 2019)

	September 8, 2019	September 9, 2019	September 10, 2019	September 11, 2019	September 12, 2019	September 13, 2019
	Sun	Mon	Tue	Wed	Thu	Fri
8:30 AM		REGISTRATION	Yohei Kobayashi: Next Generation Light Source and Artificial Intelligence for Laser Processing (Invited)	Max Lederer: European XFEL: next generation high rep-rate light source - laser installations and applications (Invited)	KEYNOTE LECTURE. Ursula Keller: Novel Concepts for Ultrafast Lasers	Yongfeng Lu: Laser-assisted Mass Spectrometry in Open Air (Invited)
8:45 AM		"	"	"	"	"
9:00 AM		"	Andrei Rode: Ultrashort-pulse laser processing of steel for large-scale real-world industrial applications	Jennifer Gottfried: Initiation of high-temperature exothermic chemistry via nanosecond-pulsed laser ablation	"	Jhanis Gonzalez: Laser Ablation-Based Techniques LIBS, LA-ICP-MS/OES and LAMIS: An ideal toolbox for direct chemical analysis of solids
9:15 AM		INTRODUCTION	Saulius Juodkazis: Directionality control in deposition of ablation debris	George Chan: Next generation ultrafast laser sampling approaches for all-optical plasma diagnostics and chemical imaging	Ying Tsui: Electron-Phonon Coupling Factor of Gold in Warm Dense Matter Regime	Andreas Limbeck: Degradation of Modern Art Materials: comprehensive examination by the combined use of LIBS and LA-ICP-MS
9:30 AM		PLENARY LECTURE Peter Kazansky: The Science and Art of Ultrafast Laser Writing	Yusuke Ito: Ultrafast and precision drilling of glass by selective absorption of CW laser beam into femtosecond-laser-induced filament	Alexey Volkov: Plasma plume expansion induced by irradiation of a metal target with a burst of short laser pulses: Effects of inter-pulse separation, spot size, and optimum conditions for laser ablation	Beat Neuenschwander: Machining of Silicon with Ultrafast Pulses: Significant Increase of the Specific Removal Rate by Using Pulse Bursts	Cristian Focsa: Laser desorption mass spectrometry of combustion-generated particles
9:45 AM		"	Ben Mills: Deep learning for 3D modelling of multiple pulse femtosecond ablation	Guanghua Chen: Diagnostics of laser driven plasma with ultrafast coaxial multiframe interferometer	Lucian Hand: Using Bursts of Femtosecond Pulses for Improved Throughput in Percussion Drilling of Thin Metal Foil	Sivanandan Harilal: Isotopic shift and hyperfine structure analysis of uranium transitions using laser-induced fluorescence of laser-produced plasmas
10:00 AM		"	Shuntaro Tani: Nanometer-precision big data to quantify impact of surface morphology to laser ablation	Jernej Lalos: Listening to light reflections: Isolated detection of elastic waves driven by the momentum of light	Joerg Schille: On the competition of processing strategies when using hundreds Watt ultrashort pulse lasers for high-throughput micro machining	David Weisz: Metal-Oxide formation in Condensing Laser-Induced Plasmas #291
10:15 AM		Break	Break	Break	Break	Break
10:30 AM		"	"	"	"	"
10:45 AM		Peter Balling: Ultrashort-pulse-laser excitation of dielectric materials investigated by temporally, spectrally, and polarization-resolved reflectivity measurements: Optical properties beyond the standard models (Invited)	Dave Geohegan: Pulsed Laser Deposition and Conversion of Atomically-Thin Two-Dimensional Crystals (Invited)	Davide Bleiner: Nano-Ablation Chemical Analysis using a Tabletop Extreme Ultraviolet Plasma-Laser (Invited)	John Fourkas: How Far Can We Push the Resolution of Multiphoton Absorption Polymerization? (Invited)	Bilal Goekce: Laser ablation synthesis of nanoparticles for Laser Additive Manufacturing (Invited)
11:00 AM		"	"	"	"	"
11:15 AM		Jean-Philippe Colombier: Contributions of radiative and non-radiative fields in ultrafast laser-induced self-organization process on irradiated surfaces	Stela Canulescu: Towards atomically controlled growth of layered structures using PLD	Cather Simpson: Semiconductor Heterostructures for Enhanced Raman Spectroscopy	Xianfan Xu: Projection multiphoton 3D printing utilizing stimulated emission depletion	Leonid Zhigilei: Atomistic simulations of nanoparticle generation and surface modification in short pulse laser ablation in liquid environment
11:30 AM		George Tsididis: Modelling of the ultrafast dynamics and surface plasmon properties of Silicon upon irradiation with mid-infrared femtosecond laser pulses	Robert Eason: A novel particulate reduction protocol for PLD-growth of low loss planar waveguide lasers	Alex Puretzy: Laser Interactions to Reveal Interlayer Coupling in Two-Dimensional Materials for Tailoring their Optoelectronic Properties	Mangirdas Malinauskas: 3D Laser Additive Nano-Manufacturing of Glass-Ceramics	Emmanuel Haro-Poniatowski: A new method for obtaining nanostructure glasses using a combination of the PLD and Sol-Gel techniques

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11:45 AM		Wolfgang Husinsky: Experiments, Finite-Element and Molecular Dynamic Calculations for LIPSS formation during ultra-short laser ablation	Alessandro Maffini: Nano- and femtosecond Pulsed Laser Deposition of ultra-low density carbon foams for laser-driven ion acceleration	Citali Sánchez-Aké: Fabrication of ordered nanostructures by single pulse laser irradiation of metal nanoprisms arrays	Daniela Serien: 3D Printing of Pure Proteinaceous Microstructures By Femtosecond Laser Direct Write	Blaz Tasic Muc: Localized subsurface pressure wave enhancement induced with laser-generated focused ultrasound
12:00 PM		Mindaugas Gedvilas: The Influence of Heat Diffusion on the Quality of Fabricated Structures by Laser Interference Ablation using Ultra-Short Laser Pulses	Jørgen Schou: Thin films of CZTS (Cu ₂ ZnSnS ₄) and CZTO (Cu ₂ ZnSnOx) for solar cells produced by pulsed laser deposition	Nazar Farid: Laser generated surface nanostructures enabled selective ablation of Mo thin film from multi-layered system	Sima Rekštytė: Polymeric 3D microstructures for actuation and sensing applications and their integration into glass microchannels	Karolis Ratautas: Local copper deposition on picosecond laser modified and chemically activated dielectric surface
12:15 PM		Matrin Garcia: Nonthermal vs. thermal effects in laser excitation and processing of materials: small- and large-scale atomistic simulations with ab-initio accuracy	Alessandro Bellucci: High-growth rate low-workfunction LaB ₆ nanostructured electron emitters developed by fs-PLD	Meng Li: Integrated path-encoded CNOT quantum gate directly written by femtosecond laser	Manan Machida: Site-selective fabrication of dissimilar metal microstructures in hydrogel by multi-photon photoreduction	Mitsuru Inada: Magnetic properties of Al nanoparticles and Al/Ag nanoparticle composites prepared by pulsed laser ablation
12:30 PM		Lunch	Lunch	12:30pm-6:00pm: Free Time	Lunch	Awards & Closing
12:45 PM		"	"	"	"	"
1:00 PM		"	"	"	"	"
1:15 PM		"	"	"	"	"
1:30 PM		"	"	"	"	"
1:45 PM		"	"	"	"	"
2:00 PM		Nicolas Sanner: Small-aspect-ratio microchannels processed in fused silica with picosecond Bessel beams (Invited)	Akos Vertes: Laser Desorption Ionization from Nanophotonic Substrates for Analysis and Imaging by Mass Spectrometry (Invited)	"	Alberto Pique: Current progress and future opportunities in Laser-Induced Forward Transfer (LIFT) (Invited)	
2:15 PM		"	"	"	"	
2:30 PM		Frank Müller: Mechano-responsive change of LIPSS-based structural colours	Michel Meunier: In vivo applications of plasmonics enhanced ultrafast laser nanosurgery	"	Philippe Delaporte: Dynamics of double pulse LIFT of metal	
2:45 PM		Stephan Graef: Tribological properties of metal-reinforced ceramic composites selectively structured with laser-induced periodic surface structures	Michael Ziskind: Real-Time Molecular Diagnosis of Tumors Using Atmospheric Pressure Infrared Matrix-Assisted Laser Desorption-Ionization Mass Spectrometry	"	Alexandra Palla-Papavlu: Fabrication of flexible biosensors via laser induced transfer	
3:00 PM		Emmanuel Stratakis: Multi-functional biomimetic surfaces produced via polarization control of femtosecond laser beams	Yoichiroh Hosokawa: Particle Arrangement in Microfluidic Chip by Additive Femtosecond Laser Processing in the Channel	"	Deepak Kallepalli: Multiphoton-Induced Spectroscopic and Morphological Changes in Plastics towards Clean Desorption of Materials	
3:15 PM		Jianjun Yang: Improving the fabrication of nanostructures on metal surfaces by modulated femtosecond laser pulses	Jaka Mur: Pressure wave focusing effects following laser medical procedures in human eyes	"	Myeongkyu Lee: Laser-induced dewetting of metal thin films for template-free plasmonic color printing	
3:30 PM		Stefano Orlando: All-carbon THz components based on laser-treated diamond	Giannis Zacharakis: Imaging at multiple transport mean free paths with multi-projection light sheet fluorescence microscopy and phase retrieval tomography in patient derived cancer cell live organoids	"	Hiroshi Yoshikawa: Production of Organic Crystals with Desired Shape via Laser Ablation	
3:45 PM		Break	Break	"	Break	
4:00 PM		"	"	"	"	
4:15 PM		Razvan Stoian: Volume nanostructuring of glasses (Invited)	Peter Herman: TBD (Invited)	"	Takakazu Suzuki: 1000-fps consecutive ultrafast 2D-burst imaging with a sub-nanosecond temporal resolution by a frequency-time encoding of SF-STAMP (Special Student Session)	
4:30 PM		"	"	"	Keiichi Bamoto: Femtosecond Laser Beam Mode Optimizer for Microdrilling (Special Student Session)	

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4:45 PM		Yoshiki Nakata: Adaptive and accurate beam shaping by using a virtual diagonal phase grating	Daniele M. Trucchi: High-temperature black diamond solar cells	"	Søren Hanghøj Møller: Visualizing and quantifying resonant electric near fields in topology-optimized plasmonic nanostructures by femtosecond-laser-induced multiphoton polymerization (Special Student Session)	
5:00 PM		Stefanie Kohl: Influence of Temporal Beam Shaping onto Ablation Efficiency and Process Dynamics of Laser Beam Drilling with Short Pulses	Peter Gregoric: Low-fluence ablation as a tool for producing thin-layer oxides and controlling the corrosion behavior of a stainless-steel surface	"	Miao He: Large Scale Atomistic Simulation of the Generation of Surface Morphology and Plume Evolution in Femtosecond Laser Ablation of Ag (Special Student Session)	
5:15 PM		Claude Aguergaray: Simultaneous, inline, surface and intra-volume machining with dual-focus SLM emulated lens	Steffen Weissmantel: Influence of heat accumulation during laser micromachining of CoCrMo alloy with ultrashort pulses in burst mode	"	Andrew Chan: New on the Physics Menu: Superconducting Sandwiches! (Special Student Session)	
5:30 PM		Paulius Gečys: Bessel beam formation with all laser fabricated axicon - case of glass dicing applications	Michael Gaj: Methods to Minimize and Control Surface Tension Deformation During Infrared Laser Machining and Polishing of Glass Surfaces	"	Yoonsoo Rho: Laser chemical doping and structural modification of 2D materials (Special Student Session)	
5:45 PM		Francis Bennet: High power laser propagation from ground to space with adaptive optics for space situational awareness	Yuliya Podobna: Flexible 100 W femtosecond laser	"	Mika Westerhausen: 3D Super-resolution reconstruction for bio-imaging by LA-ICP-MS (Special Student Session)	
6:00 PM	CONFERENCE OPENING & WELCOME	POSTER SESSION 1	POSTER SESSION 2	CONFERENCE DINNER	POSTER SESSION 3	
6:15 PM	"	"	"	"	"	
6:30 PM	"	"	"	"	"	
6:45 PM	"	"	"	"	"	
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