ICUIL 2018 Conference

Monday, September 10th

07:30-08:15	Registration	
08:15-08:30	Welcome address	Thomas Kühl
08:30-10:30	New and upcoming laser facilities	Chair:
		Terrance Kessler

- Petawatt Class Lasers Current Status and Future Directions Colin Danson, AWE plc
- Short pulse, high peak power, high average power lasers of the ELI facilities Karoly Osvay, ELI-ALPS
- Recent Progress on the ultraintense ultrafast laser at SIOM Yuxin Leng, Shanghai Institute of Optics and Fine Mechanics

10:30-10:45	Coffee Break	
10:45-12:15	QED/Laser-electron interactions	Chair:
		Christopher Barty

- GeV Electron Acceleration and Strong Field QED Research with Multi-PW Laser Chang Hee Nam, GIST Korea
- Laser-electron scattering in the strongly nonlinear regime and the generation of high-order harmonics
 - Sudeep Banerjee, University of Nebraska
- Experimental evidence of radiation reaction in the collision of a high-intensity laser pulse with a laser-wakefield accelerated electron beam Elias Gerstmayr, Imperial College London

12:30-14:00	Lunch break	
14:00-15:40	Laser Wakefield Acceleration	Chair:
		Felicie Albert

- Laser-plasma accelerator research at the BELLA Center Carl Schroeder, Lawrence Berkeley National Laboratory
- Feedback control of the spatio-temporal properties of high-intensity laser pulses to optimize x-ray and 100 MeV electron generation
 - Daniel Symes, STFC Rutherford Appleton Laboratory
- Controlling relativistic electrons with radially polarized light Diego Guenot, Lund University
- Highest peak current electron beams from laser wakefield accelerators Arie Irman, Helmholtz-Zentrum Dresden-Rossendorf

		<u> </u>
15:40-16:	:00	Coffee break
16:00-18:	:00	Poster session 1
19:30		Barbecue dinner

Tuesday, September 11th

08:30-10:50	Ti:sapphire-based laser systems	Chair:
		Catherine Le Blanc

- 339J chirped pulse amplifier in 10 PW SULF Laser Zebiao Gan, Shanghai Institute of Optics and Fine Mechanics
- Online diagnostics and long-term stability of the 200 TW ANGUS laser system *Timo Eichner, University of Hamburg*
- Status update and first commissioning results of the Apollon 10PW laser Dimitrios Papadopoulos, LULI/Ecole Polytechnique
- Towards high repetition rate ultra-intense lasers, latest developments at Amplitude Technologies Franck Falcoz, Amplitude
- ATLAS-3000, the multi-PW Ti:Sa laser at Garching as an electron and radiation source Stefan Karsch, MPI für Quantenoptik
- Operational Experience with the BELLA PW Laser Facility for Collaborative Research in Laser Plasma Science
 - Csaba Toth, Lawrence Berkeley National Laboratory
- High Energy TiSa Amplifiers for Multi-PetaWatt Laser Systems Christophe Radier, Thales

10:	50-11:05	Coffee Break	
11:	05-12:25	UHI Lasers at other large scale instruments	Chair:
			D. Jaroszynski

- Ultra-High Intensity Lasers at Hard X-ray Free Electron Lasers Thomas Cowan, Helmholtz-Zentrum Dresden-Rossendorf
- LIGHT at GSI: Laser Ion Generation, Handling and Transport Abel Blazevic, GSI Darmstadt
- Probing vacuum birefringence in head-on collisions between 10 PW laser and 1 GeV gamma-rays at ELI-NP

Yoshihide Nakamiya, IFIN-HH/ELI-NP			
12:30-14:00 Lunch B	reak		
14:00-16:00 Parallel	Sessions		
Gratings/Damage	Chair:	Relativistic Laser plasma	Chair:
	M. Nishiuchi	interactions	T. Kühl
 High damage threshold optic laser systems: State of the an Optics <i>Enam Chowdhury, The Ohio State Chowdhold Chowdhury, The Ohio State Chowdhury, The Ohio</i>	is in ultra-intense and Next Gen State University ion Gratings for China ience and Id-coated Gratings	 Simulation of Fusion Reaction Power Laser Accelerated Production In Nuclei Lotfia M. ElNadi, Cairo Univ Relativistic electron physics intensity laser-solid interact Ravindra Gattamraju, Tata Fundamental Research Ultra-intense laser produce magnetic fields at the rear substitute of Fundamental Research Highly relativistic ultrashort interaction with ordered nat and neutron generation 	on Of Ultra High otons With Boron ersity in ultrahigh cions Institute of d mega-gauss cide of thin targets fundamental pulse laser

Jorge Rocca, Colorado State University

- Dynamic field distribution study inside a dispersive multilayer dielectric coating for improving ultrashort laser pulse damage threshold
 - Seung-whan Bahk, University of Rochester
- Wavelength dependence in the relativistic interaction of ultrashort laser pulses with nanostructured solids Zhanna Samsonova, Friedrich Schiller University Jena
- Relativistic interaction between few-cycle laser pulses and overdense plasmas
 Neil Zaim, Laboratoire d'Optique Appligée

16:00-16:20 Coffee	e break		
16:20-19:00		Parallel Sessions	
Components and targetry	Chair:	Laser-driven ion beams	Chair:
	Lili Hu		M. Roth

- Plasma mirror on LFEX
 Yasunobu Arikawa, Osaka University
- A New Concept on Thermal-Lens-Free Solid State Laser: Heat Capacitive Active Mirror HACAM
 - Ken-ichi Ueda, ILS/UEC-Tokyo
- 235mm-diameter Ti:sapphire for 10 PW ultrafast laser facility
 Yin Hang, Shanghai Institute of Optics and Fine Mechanics
- Large-size LBO crystal for Ultrahigh Intensity Laser
 - Zhanggui Hu, Tianjin University of Technology
- Thin Disk -Slab Ti:Sa Amplifiers Vladimir Chvykov, ELI-ALPS
- Ultrafast Thin-Disk Amplifiers Knut Michel, Trumpf Scientific

- M. Roth
 Relativistic Electron Streaming Instabilities
 Modulate Proton Beams accelerated in Laser-
 - Plasma Interactions
 Christian Rödel, Helmholtz Institute Jena
- Time and spatially-resolved density
 measurement of Proton-heated Warm Dense
 Silica using Phase Contrast X-ray imaging
 Maxence Gauthier, SLAC National Accelerator
 Laboratory
- High Charge Ion Beams with Achromatic
 Divergence by a High Repetition Rate Petawatt
 Laser
 - Sven Steinke, Lawrence Berkeley National Laboratory
- Off-harmonic optical probing of high intensity laser-matter interaction with a stand-alone probe laser system Constantin Bernert, Helmholtz-Zentrum Dresden-Rossendorf

Temporal Contrast I Chair: D. Papadopoulos

- Spatio-temporal characterization of the PW BELLA laser
 Wim Leemans, Lawrence Berkeley National Laboratory
- Single-shot high-dynamic temporal and spatiotemporal characterizations by self-referenced spectral interferometry Thomas Oksenhendler, iTEOX
- Exploring various spectral, temporal, and spatial pulse shaping techniques for high energy short pulse lasers
 Jens Schwarz, Sandia National Laboratories

19:30 Dinner

Wednesday, September 12th

08:30-10:30 High-energy high-intensity lasers

- Accurate Performance Predictions of the Kilojoule Petawatt-class Advanced Radiographic Capability
 David Alessi, Lawrence Livermore National Laboratory
- PETAL laser performance on the first experimental campaigns Nathalie Blanchot, CEA-CESTA
- Hybrid OPCPA/Glass 10 PW laser at 1 shot a minute *Erhard Gaul, National Energetics, Inc.*
- LULI2000 Facility Overview and Status Update Loic Meignien, CNRS
- Upgrades to the Z-Petawatt Laser at Sandia National Laboratories
 Patrick Rambo, Sandia National Laboratories

10:30-10:45 Coffee Break

10:45-12:45 Temporal contrast II

- Generation of high-contrast few-cycle pulses via nonlinear ellipse rotation in a differentially pumped hollow-fiber
 - Nikita Khodakovskiy, ELI-HU Non-Profit Ltd.
- Temporal prepulse generation in high-intensity CPA lasers from imperfect domain orientation in anisotropic crystals
 - Josef Cupal, ELI Beamlines
- Pump induced contrast degradation in OPCPA systems Viktor Pajer, ELI-ALPS
- Pulse contrast enhancement via non-collinear sum-frequency generation of the signal and idler of an optical parametric amplifier
 - Gilliss Dyer, SLAC National Accelerator Laboratory
- High dynamic range, large temporal domain laser pulse measurement Victor Schanz, TU Darmstadt
- Comparative study of pulse contrast evaluation techniques towards spatio-temporal beam analysis Stefan Bock, Helmholtz-Zentrum Dresden-Rossendorf

12:45-14:15 Lunch break

14:15-16:25 Nuclear photonics

Chair: Jorge Rocca

Chair: Qihua Zhu

Chair: Vincent Bagnoud

- Plasma Bound Nuclear Reaction Studies Using High-Power Lasers Dieter Schneider, Lawrence Livermore National Laboratory
- Laser-monitored fusion-triggered liquid transmutator Toshiki Tajima, University of California at Irvine
- Laser-driven compact sources of epithermal and thermal neutrons Satyabrata Kar, Queen's University Belfast
- R&D of Laser Driven Neutron Sources and Applications in Japan Kunioki Mima, The Graduate School for the Creation of New Photonics Industries
- High-flux neutron generation from planar cryogenic deuterium jets Chandra Curry, SLAC National Accelerator Laboratory
- Recent developments and future applications for Laser-Driven Neutron Sources
 Markus Roth, TU Darmstadt

16:30-18:00	Coffee break and Poster session 2
18:00-19:30	Panel discussion
20:00	Conference Dinner

ICUIL 2018 Conference

Thursday, September 13th

08:30-10:40	High-average-power high-intensity lasers	Chair:
		Joachim Hein

- Status and prospects for fiber-based high-intensity lasers Jens Limpert, Friedrich Schiller University Jena
- Demonstration of a kilowatt average power, 1 Joule short pulse laser Brendan Reagan, XUV Lasers, Inc./Colorado State University
- Relativistic-intensity near-single-cycle kHz laser driver Aline Vernier, Laboratoire d'Optique Appliquée
- 10 W CEP-stable few-cycle source at 2 um with 100 kHz repetition rate Marcel Neuhaus, Ludwig Maximilians University Munich
- XCAN: a highly scalable femtosecond coherent amplification network Anke Heilmann, Ecole Polytechnique, Université Paris-Saclay
- Current status and performance of the PENELOPE Laser System Markus Loeser, Helmholtz-Zentrum Dresden-Rossendorf

10:40-11:00	Coffee Break	
11:00-13:00	Nonlinear amplifiers and OPCPA technology	Chair:
		Jonathan Zuegel

- Designing an Efficient Raman Amplifier
 Dan Haberberger, Laboratory for Laser Energetics
- Overview of a multi-petawatt OPCPA laser facility in CAEP Kainan Zhou, Laser Fusion Research Center
- High-contrast, few-cycle pulses from picosecond-pumped OPCPA for relativistic laser-matter interaction
 - Zsuzsanna Major, GSI Darmstadt
- 15 W, few-cycle and ultra-stable mid-IR OPCPA Nicolas Thiré, Fastlite
- Advances in Extreme Light Compression Jonathan Wheeler, Ecole Polytechnique

13:00-14:30	Lunch break
14:30-22:00	Excursion

ICUIL 2018 Conference

Friday, September 14th

08:30-10:10	Attoscience and EUV sources	Chair:
		Jens Limpert

- Recent progress on laser-driven soft x-ray lasers Stephane Sebban, Laboratoire d'Optique Appliquée
- Towards isolated high energy attosecond pulses from relativistic high harmonics generation Vyacheslav Leshchenko, Ludwig-Maximilians University Munich
- From quantum-optical XUV spectrometry to ultrafast nonlinear XUV optics Paraskevas Tzallas, ELI-ALPS
- Helicity in a twist: full polarization and vortex control of EUV harmonics and attosecond pulses using light spin-orbital momentum coupling

Carlos Hernandez-Garcia, University of Salamanca

10:10-10:30	Coffee Break	
10:30-11:50	Beam Quality	Chair:
		Christopher Hooker

- Characterization of beam-quality of J-KAREN-P laser facility at QST
 Hiromitsu Kiriyama, National Institutes for Quantum and Radiological Science and Technology
- Wavefront Degradation of a 200 TW Laser from Heat-Induced Deformation of In-Vacuum Compressor Gratings
 - Vincent Leroux, University of Hamburg
- Spatio-Temporal Characterization of Pump-Induced Wavefront Aberrations in Yb-Doped Materials Issa Tamer, Helmholtz-Institute Jena
- High vacuum compatible wave front sensor for focal spot diagnostics and optimization *Ivan Doudet, Phasics S.A.*

11:50-13:10 LWFA driven light sources and applications Chair:
Csaba Toth

- Development and applications of light sources driven by laser-wakefield acceleration with picosecond lasers
 - Felicie Albert, Lawrence Livermore National Laboratory
- Warm Dense Matter probed at femtosecond resolution by Betatron X-rays Benoit Mahieu, Laboratoire d'Optique Appliquée
- Laser-Plasma Driven Water-Window Undulator Radiation Andreas Maier, Hamburg University
- Advanced electron and X-ray sources using laser wakefield acceleration Andreas Döpp, Ludwig Maximilians University Munich

13:10-14:30 Closing Remark and Lunch