

# ICUIL 2016 Conference Program

Sunday 11 September

Time	Speaker	Title
18:00 - 19:30	Welcome Reception	
19:30 - 21:00	Dinner	

Monday 12 September

## Session 1. High repetition laser systems

Chair: H. Kiriya

Time	Speaker	Title
8:30 - 8:45		Opening
8:45 - 9:15	M1.1	T. Spinka (invited) Amplification of fs Pulses to High Energy with High Repetition Rate
9:15 - 9:30	M1.2	F. Falcoz 60J, 10Hz Nd:YAG pump for PW systems
9:30 - 9:45	M1.3	C. L. Haefner Next Generation High Intensity Laser Systems
9:45 - 10:00	M1.4	R. Clady High repetition rate (100Hz), high peak intensity ( $10^{19}\text{W.cm}^{-2}$ ), high contrast femtosecond laser chain
10:00 - 10:30	Coffee Break	

## Session 2. Particle acceleration

Chair: M. Borghesi

Time	Speaker	Title
10:30 - 11:00	M2.1	W. Leemans (invited) BELLA/Staged wakefield acceleration of electrons
11:00 - 11:15	M2.2	V. Malka Manipulating Electrons with Intense Laser Pulses
11:15 - 11:30	M2.3	C. Scullion Ion Acceleration from ultra-thin solid targets using femtosecond laser pulses
11:30 - 11:45	M2.4	P. K. Singh Results of ion-acceleration from laser-driven $\mu\text{m}$ -thick solid foils

11:45 - 12:00	M2.5	G. Cantono	Relativistic surface plasmon driven electron acceleration and high harmonic generation
12:00 - 12:15	M2.6	A. Gonoskov	Ion acceleration based on electrons locking in a laser-formed standing wave
12:15 - 12:30	M2.7	E. McCary	Proton and Ion Acceleration on the Contrast Upgraded Texas Petawatt Laser
12:30 - 14:00	<b>Lunch</b>		

### Session 3. Ultra-high intensity laser systems (Ti:sapphire based)

Chair: C. Hooker

Time		Speaker	Title
14:00 - 14:30	M3.1	R. Li (invited)	The 10PW Laser Project at Shanghai and Recent Progress
14:30 - 14:45	M3.2	F. Lureau	Latest achievements in 10 PetaWatt laser development for ELI Nuclear Physics
14:45 - 15:00	M3.3	M. Kalashnikov	Towards few cycle PW lasers with kW average power
15:00 - 15:15	M3.4	V. Chvykov	Thin Disk Ti: Sapphire Amplifiers for PW-level laser systems
15:15 - 15:45	M3.5	S.-K. Lee (invited)	0.1 Hz, 4 PW Ti:sapphire laser
15:45 - 16:00	M3.6	H. Kiriya	The J-KAREN-P Laser Facility at QST
16:00 - 16:15	<b>Group Photo</b>		
16:15 - 18:00	<b>Break</b>		

### Poster Session 1.

18:00-19:30

	Presenter	Title
M-P1	H.-B. Sang	Positron acceleration in plasma bubble wakefield driven by an ultraintense laser
M-P2	Sz. Toth	Development of a 10W, 80 MHz repetition rate amplifiers for few cycle pulses
M-P3	A. Savel'ev	Highly efficient electron acceleration in long scale preplasma of the solid target at slightly relativistic intensities
M-P4	G. G. Manahan	On the possibility of CO <sub>2</sub> -based plasma preionization for advanced plasma wakefield accelerators

M-P5	H. Tomizawa	First observation on photoemission enhancement from copper metal cathode illuminated by z-polarized uv besell beam
M-P6	C. Le Blanc	Alignment, characterisation and optimisation of an Offner stretcher at three wavelengths
M-P7	S. Qin	Development of a high contrast ratio femtosecond ultrahigh intensity Ti:Sapphire amplifier with multi-output ports
M-P8	J.-Y. Yoo	Pulse compression of a 100 TW Ti:Sapphire laser in a solid medium
M-P9	J.-P. Zou	Advances of the Apollon 10 PW project:– investigation of the spatio-temporal effects
M-P10	M. Galimberti	Fast Beam Pointing Stabilization for High Power Laser System
M-P11	R. S. Nagymihaly	Spectral phase noise in a cryogenically cooled Ti:S amplifier
M-P12	J. Y. Zhong	Low-beta Magnetic reconnection driven with a Helmholtz capacitor-coil target
M-P13	R. K. Singh	Terahertz Radiation Generation by Beating of Two Super Gaussian laser beams in Axially Magnetized Plasma
M-P14	A. Sharma	Effective laser driven proton acceleration from near critical density hydrogen plasma
M-P15	V. Bagnoud	Generating and transporting intense, short ion bunches with the LIGHT beamline
M-P16	T.Ceccotti	Electron bunches accelerated by laser-driven resonant surface plasmons at SLIC: last results and perspectives
M-P17	Y.Y. Tsui	XUV and Optical Excited Warm Dense Matter
M-P18	M. Scisciò	Study of a laser-driven proton beam line: optimization of focusing and energy selection devices
M-P19	M. Borghesi	Single-Shot Radiobiology With Ultrashort Laser-Driven Ion pulses
M-P20	M. Barberio	Stress testing of materials using Laser-accelerated protons
M-P21	F. Cambroneró-López	D-scan real-time detection of fast spectral phase distortions imparted by dielectric mirrors in femtosecond laser pulses
M-P22	B. Wattellier	Focal Spot Diagnostic and Optimization for arbitrary shaped beams
M-P23	C. Wattellier	Beam reduction system for beam high quality diagnostic and rapid Adaptive Optics loop
M-P24	P. Jójárt	Phase noise measurement of water-cooled optomechanic components for high average power lasers

M-P25	K. Nakamura	Studies on Temporal and Spatiotemporal Distortions for Laser Plasma Accelerators
M-P26	E. J. Harvey	A source of sub-picosecond pulses in the ultra-violet for optical diagnosis of high energy density physics experiments
M-P27	H. Boualam	Dynamic contrast ratio measurement of laser pulses
M-P28	J.-C. Chanteloup	XCAN: A Laser Coherent Beam Combining project in femtosecond regime
M-P29	W. J. Liu	Ultra-broadband WS <sub>2</sub> -based saturable absorbers for erbium-doped fiber lasers
M-P30	Lihui Pang	Hybrid Q-switched Er-doped fiber laser with WS <sub>2</sub> saturable absorber
M-P31	I. A. Begishev	Advanced Laser Development and Plasma-Physics Studies on the Multi-Terawatt Laser
M-P32	M. A. Fareed	Spectral Redshift in High-order Harmonics from Diatomic Carbon Molecules
M-P33	M. Blanco	High harmonic generation of elliptically polarized pulses
M-P34	F. Giambruno	HHG Beamline, a unique turnkey system for the generation of a brilliant XUV beam
M-P35	A. Ferré	K $\alpha$ X-ray emission: a footprint of dominant interaction mechanism
M-P36	V. Tcheremiskine	Ultrafast laser-plasma source of intense hard X-ray radiation with 100 Hz pulse repetition rate
M-P37	H. T. Nguyen	Advances in the Design and Fabrication of Diffraction Gratings for Next Generation High Peak and High Average Power Lasers Systems
M-P38	D. Alessi	Compressor Gratings for sub-100fs High Repetition Rate Petawatt Laser Systems
M-P39	C. Toth	Reliability and Usage Experience with Broad Bandwidth, High Laser Induced Damage Threshold (LIDT) Optics, Used in High Repetition Rate (1 Hz) PW Laser System
M-P40	V. Gruzdev	Theory of fundamental mechanisms of laser-induced damage of transparent optical materials for high intensity ultrafast lasers: beyond the traditional approaches

**Dinner (19:30 ~)**

## Tuesday 13 September

### Session 4. Ultra-high intensity laser systems (Nd:glass based)

Chair: E. Gaul

Time		Speaker	Title
8:30 - 9:00	T1.1	M. Hermann (invited)	Operating the Advanced Radiographic Capability short pulse high energy laser system on the National Ignition Facility
9:00 - 9:15	T1.2	G. Chériaux	L4 10 PW laser beam line
9:15 - 9:30	T1.3	N. Hopps	Upgrade of the second harmonic short pulse capability for energetic high-contrast pulses at the Orion facility
9:30 - 9:45	T1.4	P. Rambo	New Developments on Sandia's Z-Petawatt Laser
9:45 - 10:00	T1.5	V. Bagnoud	Recent progress at the PHELIX facility and future plans
10:00 - 10:30	Coffee Break		

### Session 5. Novel technologies for amplification and compression

Chair: C. Barty

Time		Speaker	Title
10:30 - 11:00	T2.1	L. Lancia (invited)	SBS-based plasma amplification of sub-picosecond laser pulses
11:00 - 11:15	T2.2	G. Vieux	An ultra-high gain amplifier based on Raman amplification in plasma
11:15 - 11:30	T2.3	K.-I. Ueda	New Approach for Thermal-Lens-Free Ceramic Lasers
11:30 - 11:45	T2.4	F. Légaré	Frequency domain Optical Parametric Amplification
11:45 - 12:00	T2.5	J. Wheeler	High Energy Pulse Compression
12:00 - 12:15	T2.6	D. Haberberger	Tunable Plasma-Wave Laser Amplifier
12:15 - 12:30	T2.7	T. Kühl	Towards ultrahigh-power pulses using stimulated Raman backscattering
12:30 - 14:00	Coffee Break		

**Session 6. Ultraintense interactions/exotic physics****Chair: P. McKenna**

<b>Time</b>		<b>Speaker</b>	<b>Title</b>
14:00 - 14:30	T3.1	T. Tajima (invited)	A "TeV on a chip" acceleration: Nanomaterial driven by X-rays
14:30 - 14:45	T3.2	B. Shen	Interaction of Ultra Intense Vortex Laser with Plasma
14:45 - 15:00	T3.3	M. Zepf	Attosecond Control of Relativistic Electron Bunches using Two-Colour Fields
15:00 - 15:15	T3.4	C. D. Murphy	Exploring Strong-Field QED with Ultra-Intense Lasers
15:15 - 15:30	T3.5	A. Sergeev	Advanced gamma ray sources based on laser-produced ultrarelativistic electron-positron plasmas
15:30 - 15:45	T3.6	B. M. Hegelich	Quantum Effects in Strong Classical Potentials and other Physics Studies with Multi-Petawatt Lasers
15:45 - 16:00	T3.7	X. Sarazin	Refraction of Light by Light with intense laser: the DeLLight Project
16:00 - 16:15	T3.8	G. Ravindra Kumar	Controlling ultrahigh intensity, femtosecond laser driven shocks
16:15 - 18:00	<b>Break</b>		

**Poster Session 2.****18:00-19:30**

	<b>Presenter</b>	<b>Title</b>
T-P1	X. Ouyang	Diagnostics for petawatt laser in SG-II facility
T-P2	Ch. Damiens-Dupont	Experimental results on Laser Diagnostics on the PETAL facility
T-P3	H. Coïc	Modeling of the compressed pulse of PETAL and comparison with the experimental results
T-P4	L. Meignien	LULI2000 front-ends update: multi-temporal-shaping capabilities with sub-picosecond jitter for plasma physics and OPCPA pumping
T-P5	S. Bucht	Transforming the Idler to Seed Raman Amplification
T-P6	S.-W. Bahk	Beam-Transport Systems for Ultra-Broadband Lasers
T-P7	P. K. Gupta	Ultra short laser pulse compression in plasma at relativistic power

T-P8	X. Levecq	New generation of deformable mirror dedicated to ultra high intensity laser
T-P9	N.-H. Zhang	Generation of 396 nm Femtosecond Laser with $K_3B_6O_{10}Cl$ Crystal
T-P10	K. Zhao	Highly Efficient 0.1 TW Scalable Supercontinuum Generation
T-P11	F. Cambroneró-López	Generation of interference patterns in a $BaF_2$ crystal
T-P12	L. Ropert	Innovative large aperture adaptive optics for intense lasers
T-P13	S. Djidel	Recent developments in opto-mechanics & coatings for PW & Multi-PW lasers
T-P14	J.-R. Marquès	On the hurdles toward efficient sub-ps laser pulse amplification via strongly-coupled SBS
T-P15	Y. Leng	Novel compressor configurations for higher-energy lasers
T-P16	I. Shaikin	PEARL-X pumping laser efficiency increasing
T-P17	L. Mikheev	Plasma-shutter Self-compression in Thin Plastic Films
T-P18	J.-P. Matte	Vlasov simulations of ultra-high laser-plasma interaction: Brillouin and Raman amplification, and ion acceleration
T-P19	L. B. Földes	Improvement of temporal and spatial profile of ultrashort KrF laser pulses by plasma mirror and by nonlinear Fourier filtering
T-P20	J. Pilar	Adaptive optics development at HiLASE
T-P21	A. Ricci	High-fidelity, sub-15fs, mJ-energy-range Laser
T-P22	K. Seto	RA5-TDR: Radiation Reaction Experiments at ELI-NP Fundamental Physics with Combined Laser and Gamma Beams
T-P23	L. Neagu	Feasibility of laser-driven Dark Matter (DM) search at Extreme Light Infrastructure-Nuclear Physics (ELI-NP)
T-P24	C. Fruhling	Highly Nonlinear Inverse Compton Scattering
T-P25	A. Muraviev	Generation of ultrathin current sheets in dense electron-positron plasma created by extreme laser fields in vacuum
T-P26	Q. Zhu	Milli-Joule-level Chirped-Volume-Bragg-Grating Based Femtosecond Fiber CPA at 1030nm
T-P27	Y. Miyasaka	Recent Progress on Development of a Stable, High-Energy OPCPA Pump Source
T-P28	Z.-H. Wang	Diode-pumped high energy all-solid-state picosecond amplifier systems for OPCPA pumping
T-P29	Y.-N. Peng	Nonlinear effect in high power Kerr-lens mode-locked Yb:YAG thin disk oscillator
T-P30	I. Musgrave	Post-pulse to Pre-pulse conversion in Saturated Optical

		Parametric Amplifiers
T-P31	M. Galimberti	Influence of the Deuteration Level in DKDP-based OPCPA
T-P32	A. Shugurov	Modeling of 3d effects in OPCPA to control petawatt-class laser pulse quality
T-P33	Q. Zhu	Petewatt level Mid-IR laser based on OPCPA by the LBO and MgO:LiNbO <sub>3</sub> crystals
T-P34	N. H. Stuart	OPCPA Pump-Depletion Contrast Enhancement using a Seeded OPCPA Fluorescence Diagnostic
T-P35	R. Budriūnas	Multi-TW, 50W average power passively CEP stabilized OPCPA system pumped by Nd:YAG and Yb:KGW lasers
T-P36	F. Silva	Intense single-cycle 2.5 fs pulses with stable electric field characterized with over-octave dispersion-scan
T-P37	C. Brabetz	Distributed wavefront control at the mid-scale glass laser system PHELIX
<b>Banquet (19:30 ~)</b>		



## Wednesday 14 September

### Session 7. Solid interactions and ion acceleration Chair: C.-G. Wahlström

Time		Speaker	Title
8:30 - 9:00	W1.1	P. McKenna (invited)	Collective plasma dynamics in the relativistic transparency regime
9:00 - 9:15	W1.2	H. Ahmed	Guided post-acceleration of laser accelerated protons by helical coil target
9:15 - 9:30	W1.3	A. D. Lad	Measuring lifespan of hot, relativistic electrons produced in ultra-intense laser-solid interactions
9:30 - 9:45	W1.4	J. T. Morrison	Acceleration of MeV particles by intense lasers, at 1kHz
9:45 - 10:00	W1.5	Y.-T. Li	Bursts of terahertz radiation from relativistic laser-plasma interactions
10:00 - 10:30	<b>Coffee Break</b>		

### Session 8. Metrology

Chair: K. Osvay

Time		Speaker	Title
10:30 - 11:00	W2.1	F. Quéré (invited)	Complete spatio-temporal characterization of high-power femtosecond laser beams
11:00 - 11:15	W2.2	C. Dorrer	Temporal Characterization of Optical Pulses by Spectral Phase Diversity
11:15 - 11:30	W2.3	F. Mollica	Direct, real-time and sensitive plasma density diagnostic by quadriwave lateral shearing interferometry
11:30 - 11:45	W2.4	S. Mondal	Single-shot detection of intense THz pulses generated by relativistic intensity laser-plasma interaction
11:45 - 12:00	W2.5	X. Levecq	New adaptive optics strategy to optimize ultra intense laser for particles generation
12:00 - 12:15	W2.6	V. A. Schanz	Development and realization of a third order crosscorrelator with ultrahigh dynamic range
12:15 - 12:30	W2.7	C. D. Gregory	Full-Power Focal Spot Characterisation of a Petawatt-class Laser
12:30 - 14:00	<b>Lunch</b>		
	<b>Excursion (14:00 ~)</b>		

## Thursday 15 September

### Session 9. Fiber technologies and coherent combination Chair: C. Dorrer

Time		Speaker	Title
8:30 - 9:00	Th1.1	A. Klenke (invited)	Coherent combination of fiber lasers
9:00 - 9:15	Th1.2	J. Ruppe	Extending CPA by at least an Order of Magnitude Using Coherent Pulse Stacking Amplification
9:15 - 9:30	Th1.3	R. Lopez-Martens	Manifold coherent combining in hollow-fiber compressors
9:30 - 9:45	Th1.4	D. Ursescu	Prospective Studies for Combining Multi-PW Pulses
9:45 - 10:00	Th1.5	E. Cormier	Fiber laser pumped Yb:CaF <sub>2</sub> multi kHz regenerative amplifier delivering 130 fs, 0.9 mJ pulses
10:00 - 10:30	<b>Coffee Break</b>		

### Session 10. Facility presentation

Chair: D. Ursescu

Time		Speaker	Title
10:30 - 11:00	Th2.1	M. Nishiuchi (invited)	The upgraded J-KAREN-P laser system and experimental results from the first light experiment
11:00 - 11:15	Th2.2	N. Blanchot	Overview of PETAL, the multi-petawatt project in the LMJ facility
11:15 - 11:30	Th2.3	B. Dromey	TARANIS-X: A multi-Joule, sub-10 femtosecond system for ultrafast science
11:30 - 11:45	Th2.4	D. N. Papadopoulos (invited)	Recent progress on the Apollon 10 PW laser
11:45 - 12:00			
12:00 - 12:15	Th2.5	E. Gaul	High contrast and high intensity focus at the Texas Petawatt Laser
12:15 - 12:30	Th2.6	J. Zhu	SG-II 5 PW Laser Facility
12:30 - 14:00	<b>Lunch</b>		

**Session 11. X-ray and XUV sources****Chair: D. Jaroszynski**

Time		Speaker	Title
14:00 - 14:30	Th3.1	P. B. Corkum (invited)	Linking high harmonic generation in solids and gases
14:30 - 14:45	Th3.2	J.-X. Li	Generation of attosecond Gamma-ray pulses via nonlinear Compton Scattering in the radiation-dominated regime
14:45 - 15:00	Th3.3	D. E. Cardenas	Relativistic electron emission from nanotargets
15:00 - 15:15	Th3.4	V. Tcheremiskine	Ultrafast laser-plasma source of intense hard X-ray radiation with 100 Hz pulse repetition rate
15:15 - 15:30	Th3.5	F. Albert	Betatron x-rays from laser-wakefield accelerators: a novel probe for time-resolved HED science experiments.
15:30 - 15:45	Th3.6	S. Banerjee	Generation of narrowband and tunable x-rays and measurement of electron beam emittance using inverse Compton scattering
15:45 - 16:00	Th3.7	L. Chen	Resonantly Enhanced Betatron X-rays in a Laser Plasma Accelerator
16:00 - 16:15	Th3.8	J.-C. Kieffer	Laser based X-ray Synchrotron radiation at the Advanced Laser Light Source facility: from 200 TW to 500 TW
16:15 - 16:45	<b>Coffee Break</b>		

**Session 12. Tribute to Prof Wolfgang Sandner****Chair: C. Miron**

Time		Speaker	Title
16:45 - 17:05	Th4.1	C. Miron	Laying the basis of the Pan-European Extreme Light Infrastructure, ELI
17:05 - 17:25	Th4.2	G. Mourou (invited)	
17:25 - 17:45	Th4.3	C.-G. Wahlström (invited)	Wolfgang Sandner; a promotor of laser physics, Laserlab-Europe and international collaboration
17:45 - 18:05	Th4.4	T. Gallagher (invited)	Wolfgang's marriage of collision physics and laser physics
18:05 - 18:25	Th4.5	S. Steinke (invited)	From Lightsails to the generation to attosecond pulses – the relativistic Doppler Effect from a student's perspective
18:25 - 19:30	<b>Break</b>		

BBQ (19:30 ~)

## Friday 16 September

### Session 13. Components

Chair : T. Kessler

Time		Speaker	Title
8:30 - 9:00	F1.1	N. Bonod (invited)	Diffraction gratings: from principles to applications in high intensity lasers.
9:00 - 9:15	F1.2	C. Le Blanc	Complete characterisation of MMLD gratings for 30-fs pulses
9:15 - 9:30	F1.3	E. Sistrunk	Broadband Multilayer Dielectric Gratings and Compressor for High Efficiency Compression of Ultrashort Pulses
9:30 - 9:45	F1.4	A. Cotel	Meter-Size Gratings for Multi-Petawatt Laser
9:45 - 10:00	F1.5	E. Chowdhury	Laser Induced Damage Threshold (LIDT) determination of ultra-broad band optical components for few cycle ultraintense laser systems
10:00 - 10:30	Coffee Break		

### Session 14. Diode-pumped laser systems

Chair: C. Haefner

Time		Speaker	Title
10:30 - 11:00	F2.1	J. J. Rocca (invited)	1 Joule, kilowatt-class average power, diode-pumped ultrafast laser to drive soft x-ray lasers
11:00 - 11:15	F2.2	S. Banerjee	A 100 J-level nanosecond pulsed DPSSL for pumping PW-class lasers
11:15 - 11:30	F2.3	M. Hornung	54-J, 19-nm diode-pumped laser pulses at 1030 nm for sub-100 fs duration
11:30 - 12:00	F2.4	M. Loeser (invited)	PENELOPE – a high energy 150 fs diode-pumped laser system
12:00 - 12:15	F2.5	D. Sánchez	7 $\mu\text{m}$ , ultrafast OPCPA pumped by a 2 $\mu\text{m}$ Ho:YLF CPA
12:15 - 12:30			Concluding remarks
12:30 - 14:00	Lunch		