

CHILI2017 - Program

Monday, Dec 11th

9:00	9:30		Opening remarks
Session 1: Particle acceleration I Chair: Arie Zigler			
9:30 - 10:00	J. Meyer-ter-Vehn	MPQ, Germany	New results on laser ion acceleration
10:00 - 10:30	D. Neely	RAL, UK	Controlled deuterium sheath acceleration
10:30 - 11:00	M. Roth	TU Darmstadt, Germany	Recent Advances In Laser-Based Neutron Sources
11:00 - 11:40 Break			
Session 2a: Electron acceleration I Chair: Victor Malka			
11:40 - 12:10	F. Albert	LLNL, USA	Applications of betatron x-ray radiation driven by laser-wakefield accelerators
12:10 - 12:40	M. Downer	U. Texas, USA	Texas tabletop source of GeV electrons and tens-of-MeV Compton gamma-ray beams
12:40 - 13:00	N. Andreev	JIHT/RAS, Russia	High energy electrons in laser-plasma interactions
Session 2b: Attoscience Science I Chair: Zenghu Chang			
11:40 - 12:10	S. Beaulieu	INRS, Canada	Chiroptical Attosecond Metrology
12:10 - 12:40	M. Ruberti	Imperial College, UK	Ab initio simulation of attosecond pump probe experiments in atoms and molecules
12:40 - 13:10	C. Vozzi	Politecnico Milano, Italy	Attosecond probing of multielectron dynamics by HHG spectroscopy
13:10 - 15:00 Lunch Break			
Session 3a: ICF and HEDP Chair: Zohar Henis			
15:00 - 15:30	M. Rosen	Inl, USA	The ICF effort at the National Ignition Facility: Status, Challenges, & Prospects
15:30 - 16:00	D. Batani	CELIA, France	Warm dense matter produced by high-intensity short-pulsed lasers
16:00 - 16:30	D. Shvarts	NRCN, Israel	Recent experiments on NIF to determine the late nonlinear asymptotic evolution of the Rayleigh-Taylor stability
16:30 - 16:50	I. Krasnyuk	PGPI/RAS, Russia	Shock and release experiments at intense laser-matter interaction
Session 3b: Attosecond science II Chair: Caterina Vozzi			
15:00 - 15:30	M. Kling	LMU Munich, Germany	attosecond streaking spectroscopy with nanostructures
15:30 - 16:00	J. Itatani	U. Tokyo, Japan	The BIBO-based OPCPA for attosecond science
16:00 - 16:20	E. Bordo	Technion, Israel	Controlling the polarization of high-order harmonics by tuning the electron recombination times with attosecond precision
16:20 - 17:00 Break			
Session 4: Laser Plasma Interaction I Chair: Moshe Fraenkel			
17:00 - 17:30	A. Zigler	HUJI, Israel	Femto-Second Evolution of electric fields and charged particles generated by high-intensity laser interactions with solid density targets
17:30 - 17:50	C. Rödel	Jena, Germany	Relativistic surface high harmonic generation using two-color laser
17:50 - 18:10	R. McHugh	queen's University Belfast, UK	Measurements of Harmonic Wavefronts from Relativistic Mirrors and Coherent Wake Emission
18:10 - 20:30 Reception and Poster Session			

Tuesday, Dec 12th

8:50 - 9:00 Announcements

Session 5: Extreme light and Laser Metrology Chair: Nikolay Andreev

9:00 - 9:30	L. Silva	GoLP, Portugal	QED in plasmas at ultra high laser intensities
9:30 - 10:00	M. Zepf	Jena, Germany	Evidence of strong radiation reaction in the field of an ultra-intense laser
10:00 - 10:30	F. Quere	CEA, France	High-intensity laser-plasma physics with structured laser beams
10:30 - 10:50	M. Krueger	WIS, Israel	Tracing the phase of focused broadband laser pulses

10:50 - 11:20 Break

Session 6a: Facilities I Chair: Moshe Fraenkel

11:20 - 11:50	C. Nam	GIST, Korea	Development and commissioning of 20 fs, 4 PW laser
11:50 - 12:20	J. Zhu	SIOM, China	Petawatt laser facilities in NLHLP
12:20 - 12:50	M. Ferrario	INFN-LNF, Italy	From SPARC_LAB to EuPRAXIA

Session 6b: High Harmonic Generation I Chair: Gilad Marcus

11:20 - 11:50	E. Frumker	BGU, Israel	Laser induced strong-field ionization gas jet tomography
11:50 - 12:10	O. Neufeld	Technion, Israel	Optical chirality in high harmonic generation
12:10 - 12:30	L. Hareli	Tel-Aviv U., Israel	On the fly control of high harmonic generation using a structured
12:30 - 12:50	O. Kfir	University of Göttingen, Germany	Nanoscale Imaging of Magnetic Domains using High-Harmonic

12:50 - 14:30 Lunch Break

Session 7a: Facilities II Chair: Ishay Pomerantz

14:30 - 15:00	K. Tanaka	ELI-NP, Romania	Introduction of ELI-Nuclear Physics Project
15:00 - 15:30	G. Korn	ELI Beamlines, Czech republic	Advances @ ELI Beamlines: Status of user facility development
15:30 - 16:00	R. Li	SIOM, China	10 PW laser facility at Shanghai

Session 7b: EUV Chair: Matthias Kling

14:30 - 15:00	T. Popmintchev	UCSD, USA	Quantum and Extreme Nonlinear Optics Design of Coherent X-rays Using UV-VIS-IR Lasers
15:00 - 15:20	A. Zholents	ANL, USA	Obtaining of Attosecond X-ray Pulses at Free-Electron Lasers and a Status of XLEAP Project at LCLS
15:20 - 15:40	G. Marcus	HUJI, Israel	K-shell and L-shell Excitations of Nobel Atoms by Inelastic Electron Recollision

16:00 - 16:40 Break + Commercial presentations

Session 8: Electron acceleration II Chair: Markus Roth

16:40 - 17:10	J. Faure	LOA, France	Acceleration of relativistic electrons using single-cycle laser pulses at High peak power lasers at INRS and applications of laser-wakefield-based x-ray sources: from bio-medical to global food security
17:10 - 17:40	J. Kieffer	INRS, Canada	
17:40 - 18:00	M. Cerchez	Institut für Laser- und Plasmaphysik, U. Düsseldorf,	Multi-MeV Electron Acceleration via Surface Plasmons Excitation in a Novel Regime
18:00 - 18:20	J. Couperus	HZDR, Germany	Demonstration of a beam loaded nanocoulomb-class laser wakefield accelerator
18:30	Departure for the social dinner		

19:00 - Social dinner

Wednesday, Dec 13th

8:50 - 9:00 Announcements

Session 9: High Harmonics Generation II Chair: Eugene Frumker

9:00 - 9:30	S. Stagira	Politecnico Milano, Italy	Novel approaches in high harmonic spectroscopy of molecules
9:30 - 10:00	S. Sebban	LOA, France	Toward compact and ultra-intense laser-based soft X-ray lasers
10:00 - 10:30	J. Rosenzweig	UCLA, USA	High harmonic emission from extended metallic surfaces
10:30 - 10:50	D. Charalambidis	ELI-ALPS, Hungary and Greece	News from ELI-ALPS

10:50 - 11:30 Break

Session 10a: Laser plasma interaction II Chair:

11:30 - 11:50	O. Rosmej	GSI-Darmstadt, Germany	X-ray spectroscopy of the relativistic laser-matter interaction at high laser contrast
11:50 - 12:10	O. Renner	ELI Beamlines, Czech republic	Suprathermal electron driven dynamics of charge state distribution at relativistic laser intensities
12:10 - 12:30	A. Lad	Tata Institute, India	Megagauss magnetic fields at the rear side of thin targets

Session 10b: Modeling Chair:

11:30 - 11:50	L. Yi	Chalmers University of Technology, Gothenburg, Sweden	Relativistic magnetic reconnection driven by a laser interacting with a micro-scale plasma slab
11:50 - 12:10	Y. Pan	Tel-Aviv U., Israel	Quantum-Wavepacket-dependent Acceleration and Stimulated Radiative Interaction of Free Electrons
12:10 - 12:30	Y. Eliezer	Tel-Aviv U., Israel	Breaking the temporal optical resolution limit by superoscillating optical beats

12:30 - 14:30 Lunch Break

Session 11a: Particle Acceleration II Chair: Arie Zigler

14:30 - 15:00	R. Kumar	TIFR, India	Ultrafast Dynamics of Hot, Dense Plasmas Created by Relativistic Raman Backscattering of Intense Laser Beams in Plasmas
15:00 - 15:20	D. Kaganovitch	NRL, USA	
15:20 - 15:50	T. Pikuz	Osaka U., Japan	

In memoriam of Anatoly Faenov
X-ray radiation properties of plasma under interaction of femtosecond laser pulses with intensities $\sim 10^{22}$ W/cm²

Session 11b: Attosecond Science III Chair: Eugene Frumker

14:30 - 15:00	W. Boutu	CEA, France	Nanoplasmonic amplification of laser harmonics from the infrared to the mid-infrared
15:00 - 15:20	O. Pedatzur	Weizmann, Israel	Double Blind Holography of Attosecond Pulses
15:20 - 15:50	Z. Chang	U. Central Florida, USA	Isolated attosecond X-ray pulses reaches the Water Window.

15:50 - 16:30 Break

Session 12: Particle Acceleration III Chair: Ravi Kumar

16:30 - 17:00	S. Steinke	LBL, USA	Recent progress on experiments at the BELLA PW laser for electron and ion acceleration
17:00 - 17:20	R. Pompili	INFN-LNF, Italy	High-brightness electron beams focusing with plasma lenses: recent results at SPARC_LAB
17:20 - 17:40	J. Ferri	Chalmers University of Technology, Gothenburg, Sweden	Proton beams generated by a pair of laser pulses
17:40 - 18:00	M. Krishnamurthy	TIFR, India	Acceleration of neutral atoms in intense laser fields

Thursday, Dec 14th: Organized sightseeing tour

Posters

I. Barth	Hebrew U., Israel	Spectral manipulating and plasma wave seed for Raman amplifiers
I. Dey	HIL Applied Medica,	Two-plasmon decay instability during femtosecond laser interaction
F. Filippi	Frascati, INFN, Italy	3D-printed capillary for hydrogen filled discharge for plasma based experiments in RF-based electron linac accelerator
V. Gasilov	Keldysh Institute of Applied Mathematics RAS, Moscow,	Capillary Discharges for Electron Acceleration: Models and Simulations
B. Gilicze	University of Szeged, Hungary	Development of high-brightness high-contrast UV laser system
F. Grepl	ELI Beamlines, Czech Republic	Optical probing of 1 PW laser interaction with a cryogenic solid-hydrogen ribbon
A. Hanuka	Technion, Israel	Transverse Dynamics in an Optical Booster
Z. Henis	Soreq NRC, Israel	Electron - Ion Equilibration in Intense Laser Induced Shock Waves
K. Jana	Tata Institute, India	Ultrafast dynamics of solid-density plasma created by high-contrast femtosecond laser pulses
K. Khishchenko	Joint Institute for High Temperatures of the Russian	Modeling of planar waves of thermonuclear burn ignited by high intensity laser and proton beams
M. Krueger	weizmann, Israel	Self-probing spectroscopy of XUV photo-ionization dynamics in a strong-field environment
G. Lerner	Technion, Israel	Generation of high harmonics with a collectively tunable polarization state
D. Levy	weizmann, Israel	Automatic tape drive for high-repetition laser-plasma ion acceleration
O. Neufeld	Technion, Israel	Group theory for high harmonic generation
J. Papeer	Hebrew U., Israel	Generation of long and continuous plasma channels in air
E. Reicher	Max Planck Institute for Nuclear Physics, Germany	QED in strong fields - the emergence of a novel quantum parameter and the breakdown of the Constant-Crossed-Field approximation
C. Rödel	Jena, Germany	Laser-driven proton acceleration using cryogenic hydrogen targets
Z. Samsonova	FSU Jena, Germany	Relativistic nanophotonics in long wavelength regime
S. Smartsev	Weizmann, Israel	Axiparabola: long-focal depth high resolution mirror for broadband high intensity lasers
S. Tata	Tata Institute, India	Generation and acceleration of neutral atoms in intense laser plasma experiments
N. Varkentina	Imagine Optic, France	Adaptive optics for ultra-intense laser focalization optimization at full
N. Varkentina	Imagine Optic, France	New generation of deformable mirror dedicated to wavefront correction of ultra-high intensity lasers
M. Voin	Technion, Israel	THz Radiation Source Based on a Hybrid Cavity
J. Vyskocil	ELI Beamlines, Czech Republic	Bremsstrahlung and inverse Compton scattering in interactions of ultraintense laser pulse with foil targets
M. Zakova	ELI Beamlines, Czech Republic	PIC simulations: Advanced target designs and the role of prepulse in ion acceleration

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