

CHILI2013 - Program

Monday, Dec 2nd

9:15 - 9:30 Opening remarks

Session 1: ICF and Laboratory Astrophysics Chair: Arie Zigler

9:30 - 10:10	C. Barty	L. Livermore National Lab, USA	NIF and the Pursuit of Star Power on Earth
10:10 - 10:50	S. Bulanov	Japan Atomic Energy Agency, Kyoto, Japan	Super Powerful Lasers & XFELs: Paving the Way towards Relativistic Laboratory Astrophysics

10:50 - 11:15 Break

Session 2: Ultrahigh intensity and Ultrashort laser interactions Chair: Gilad Marcus

11:15 - 11:55	G. Mourou	Ecole Polytechnique/IZEST, France	Can the Future of Accelerators Be Fibers? The Optics Road to GeV Scientific and Societal Applications
11:55 - 12:35	K. Schafer	Louisiana State U., USA	Attosecond Transient Absorption in Laser-Dressed Atoms

12:35 - 14:15 Lunch Break

Session 3: Attosecond science I Chair: Kenneth Schafer

14:15 - 14:45	K. Osvay	ELI-HU, Szeged, Hungary	The Attosecond Facility of the Extreme Light Infrastructure
14:45 - 15:05	A. Landsman	Eidgenössische Technische Hochschule, Zürich, Switzerland	Tunneling time and non-adiabatic effects in strong field ionization
15:05 - 15:25	K. Kim	National Research Council Canada, Canada	Manipulating Quantum Paths for generation and characterization of attosecond pulses
15:25 - 15:45	G. Marcus	Hebrew University of Jerusalem, Israel	K-shell excitation using the re-colliding electrons from a Carrier Envelop Phase Stabilized 2-Cycles IR (2.1um) Radiation Source

15:45 - 16:15 Break

Session 4: Laser-particle acceleration I Chair: Moshe Fraenkel

16:15 - 16:45	D. Neely	Rutherford Appleton Laboratory, UK	High efficiency laser driven ion studies
16:45 - 17:15	C. Nam	Gwangju Inst. of Sci. and Technology, Korea	Energetic proton generation from relativistically driven laser-produced plasmas
17:15 - 17:45	H. Ruhl	Ludwig Maximilians U., München, Germany	The interaction of intense laser radiation with a nano foil

18:00 - 20:00 Reception

Tuesday, Dec 3rd

Session 6: High Harmonics Generation Chair: Alon Bahabad

9:00 - 9:20	Y. Deng	Max Planck Gesellschaft, Berlin, Germany	High Power OPCPA system for XUV sources at 500 kHz
9:20 - 9:40	A. Fleischer	Technion, Haifa, Israel	High harmonic generation with fully controlled polarization :examination of the role of spin angular momentum in extreme non-linear optics
9:40 - 10:00	I. Földes	Wigner Research center, Budapest, Hungary	High harmonics generation and ionization effects in cluster targets
10:00 - 10:20	S. Goh	University of Twente, The Netherlands	High harmonic generation in a large-volume capillary for seeding of free-electron lasers

10:20 - 10:45 Break

Session 7: Ultrahigh Power Laser Technology Chair: Arie Zigler

10:45 - 11:15	J. Zhu	Shanghai Inst. of Optics and Fine Mechanics, China	Research on the contrast test and improvement for PW Laser in SGII-UP
11:15 - 11:35	D. Kaganovich	Naval Research Laboratory, USA	Origin and control of the picosecond pedestal in femtosecond laser systems and its effect on laser wakefield acceleration of electrons
11:35 - 11:55	S. Szatmari	U. Szeged, Hungary	Contrast improvement by nonlinear temporal and spatial filtering of high-power laser beams
11:55 - 12:15	N. Fisch	Princeton U., USA	Enhancing Resonant Raman Compression in Plasmas

12:15 - 14:00 Lunch Break

Session 8: Laser-particle acceleration II Chair: Zohar Henis

14:00 - 14:30	K. Ledingham	U. Strathclyde, UK	A Turkish-Scottish International Centre for Laser Driven Ion Therapy and Applications
14:30 - 14:50	I. Pomerantz	U. Texas, USA	An ultrashort pulsed neutron source

14:50 - 15:20 Break

Session 9: Laser-particle acceleration III Chair: Ishay Pomerantz

15:20 - 15:50	C. Joshi	UC Los Angeles, USA	Latest results on the Plasma Wakefield Acceleration experiments
15:50 - 16:20	D. Jaroszynski	U. Strathclyde, UK	Ultra-short bunch acceleration in the laser plasma wakefield accelerator
16:20 - 16:40	A. Zigler	Hebrew University of Jerusalem, Israel	Temporal evolution of femtosecond laser generated plasma filaments

16:40 - 17:40

Poster session + Coffee

18:30 Departure for the social dinner

19:00 - Social dinner

Wednesday, Dec 4th

8:50 - 9:00

Announcements

Session 10: Attosecond science II Chair: Gilad Marcus

9:00 - 9:20	A. Bahabad	Tel Aviv U., Israel	Macroscopic manipulation of High-Harmonic-Generation through bound-state coherent control
9:20 - 9:40	O. Pedatzur	Weizmann Inst., Rehovot, Israel	Attosecond Tunneling Interferometry
9:40 - 10:00	T. Ruchon	Commissariat à l'énergie atomique, France	Combined harmonic phase spectroscopies
10:00 - 10:20	F. Légaré	Inst. national de la recherche sci., Montreal, Canada	Fourier plane Optical Parametric Amplification

10:20 - 10:45 Break

Session 11: Warm Dense Matter Chair: Anatoly Faenov

10:45 - 11:15	R. Falcone	UC Berkeley, USA	X-ray lasers, laser-plasmas, and high harmonics: what's best for creating and probing high-energy-density matter?
11:15 - 11:45	D. Batani	U. Bordeaux, France	Experimental results in the intensity regime relevant for shock ignition
11:45 - 12:05	O. Rosmej	GSI, Darmstadt, Germany	Heavy ion stopping in CHO-foam layers heated by hohlraum radiation
12:05 - 12:25	S. Eliezer	Soreq Nuclear Research Center, Israel	Laser Induced Relativistic Shock Waves
12:25 - 12:45	S. Moustazis	Technical University of Crete, Greece	A New Approach to Muon Catalyzed Fusion Energy Using Ultrahigh GeV Proton Beams from Nonlinear Force Driven Plasma Blocks

12:45 - 14:15 Lunch Break

Session 12: X-ray and Gamma Ray Sources I Chair: Ken Ledingham

14:15 - 14:45	V. Malka	Ecole Polytechnique, Palaiseau, France	Ultra-bright X ray beams with Laser Plasma Accelerators
14:45 - 15:10	C. Barty	L. Livermore National Lab, USA	Laser-Compton Gamma-ray Sources and the Emergence of Nuclear Photonics
15:10 - 15:35	A. Faenov	Japan Atomic Energy Agency, Kyoto, Japan	Radiation properties of plasma irradiated by ultra-short laser pulses with intensities of 10^{21} W/cm ²
15:35 - 16:00	N. Andreev	J. Inst. for High Temp., Russian Academy of Sci., Moscow, Russia	Fast particles and x-rays in the intense laser-matter interactions

16:00 - 16:30 Break

Session 13: X-ray and Gamma Ray Sources II Chair: Arie Zigler

16:30 - 16:50	B. Shen	State Key Laboratory of High Field Laser Physics, Shanghai,	Particle acceleration and gamma-ray radiation in plasmas
16:50 - 17:10	O. Renner	Inst. of Physics v.v.i, Prague, Czech Republic	Search for effective X-ray spectroscopic diagnosis of suprathermal electrons in fusion-relevant laser-produced plasmas
17:10 - 17:30	T. Pikuz	Japan Atomic Energy Agency, Kyoto, Japan	Coherent X-ray mirage. Discovery and possible applications
17:30 - 17:50	F. Pegoraro	Universita' di Pisa, Italy	Filamentation instability in relativistic pair plasmas

Thursday, Dec 5th

A day trip - departure at 8:30

Posters

Y. Maheut	U. Bordeaux, France	Results of PALS experiment on laser-plasma interaction for planar target at conditions relevant to Shock Ignition
T. Sakaki	U. Bordeaux , France	Transport of fast electrons in Cylindrically Imploded target
Z. Toroker	Technion, Haifa, Israel	Nonlinear Wake Amplification by Active Medium in a Cylindrical Waveguide
Z. Toroker	Technion, Haifa, Israel	Backward Raman Amplification in the Wavebreaking Regime
M. Voin	Technion, Haifa, Israel	Wakefield Amplification by Active Medium
Y. Malkov	Inst. Applied Phys., Russian Academy of Sci., Moscow, Russia	High energy ions produced by subrelativistic femtosecond laser radiation
E. Raicher	Hebrew University of Jerusalem, Israel	The Lagrangian Formulation of Quantum Electrodynamics in the Presence of Strong Fields in a Plasma Medium
R. Kupfer	Ben-Gurion U., Beer-Sheva, Israel	Computational modeling of laser-plasma interactions: Pulse self-modulation and energy transfer between intersecting laser pulses
M. Singh	Indian Institute of Technology, Delhi, India	Study of THz radiation from the nonlinear mixing of spatial gaussian laser and its second harmonic
C. Liberatore	Institute of Physics ASCR, Prague, Czech Republic	EUV ablation of polymers in the high-fluence regime
Y. Tao	University of Twente, The Netherlands	Density modulated cluster jets for quasi phase-matching of high-harmonic generation
B. Manaut	Université Sultan Moulay Slimane, Morocco	Relativistic elastic scattering of hydrogen atom by positron impact in a circularly polarized laser field
A. Hanuka	Technion, Haifa, Israel	Bragg Structure Based X-Ray FEL Operating in the Strong Compton Regime
V. Gasilov	Keldysh Inst. of Applied Mathematics, Moscow, Russia	A Laser-Induced Discharge Through a Vacuum Diode as an Intensive UV/Ion Source

Sponsored by



Super Intense Laser
matter Interactions

