35th International Workshop on Physics of High Energy Density in Matter

January 25 - January 30, 2015

Waldemar-Petersen-Haus, Hirschegg, Austria

Program

Monday, 2015.01.26

Chair: A. Ulrich			
09:00	A. Ulrich	(10 min)	Opening
09:10	B. Sharkov	(20+5 min)	FAIR
09:35	P. Spiller	(25+5 min)	Status of the FAIR synchrotron SIS100
10:05	L. Csernai	(20+5 min)	Volume ignition via time-like detonation in pellet fusion
10:30–11:00			**Coffee break**
Chair: P. Mulser			
11:00	M. Lobet	(20+5 min)	Towards quantum electrodynamics experiments on forthcoming high-power laser facilities
11:25	K. Schönberg	(20+5 min)	The path to MaRIE: The next extreme matter research facility at Los Alamos
11:50	H. J. Kong	(20+5 min)	Current status of Kumgang laser-beam combination using SBS-PCM
12:15–17:00			**Lunch break**
Chair: C. Deutsch			
17:00	Y. Krasik	(20+5 min)	Recent results of underwater electrical explosion of wire arrays
17:25	B.G. Logan	(20+5 min)	Magnetized targets on NIF for both gas capsule ignition and joint laser preheat for MagLIF (SNL)
17:50	M. Roth	(15+5 min)	Active interrogation of sensitive nuclear material using laser driven neutron beams
18:10	N.A. Tahir	(15+5 min)	Hydrodynamic tunneling of ion beams in solid targets and prospects of high energy density physics research
18:30	S. Roth	(15+5 min)	Scintillation light quenching due to high power densities in particle tracks
19:00			Dinner

Tuesday, 2015.01.27

Chair: M. Roth			
08:30	A. Pukhov	(20+5 min)	Simulations for high quality electron acceleration in a deep plasma channel
08:55	S. Rykovanov	(20+5 min)	Plasma undulator based on laser excitation of wakefields in a plasma channel
09:20	R. Tarkeshian	(15+5 min)	Charged particle self-modulation measurement in AWAKE experiment at CERN
09:40	M. Zepf	(15+5 min)	Non-linear Thomson scattering
10:00–10:30			**Coffee break**
Chair: H.J. Kong			
10:30	B. Rethfeld	(20+5 min)	Nonequilibrium electron-lattice relaxation in ultrashort laser excited solids
10:55	V. Efremov	(15+5 min)	Shock waves generated by laser in silicon dioxide
11:15	N. Medvedev	(15+5 min)	Thermal and nonthermal melting in silicon under femtosecond x-ray pulse irradiation
11:35	V. Stegailov	(15+5 min)	Pressure in electronically excited warm Dense metals
11:55	L. Di Lucchio	(15+5 min)	Particle emission in relativistic interaction of a few-cycle laser pulse with nanodroplets
12:15–17:00			**Lunch break**
Chair: D. Hoffmann			
17:00	P. Mulser	(20+5 min)	On the emergence of classical laws in plasmas and fluids from the quantum description
17:25	C. Deutsch	(20+5 min)	Stopping and meso-molecules formation in ultra-dense plasmas of FIS/WDM concern
17:50	A.R. Piriz	(20+5 min)	Rayleigh-Talor instability at a solid-liquid interface
18:15	J. Meyer-ter-Vehn	(20+5 min)	New results on laser interaction with near critical plasma
18:40	P.A.P. Nghiem	(15+5 min)	Advanced concepts and methods for very high intensity beams
19:00			**Dinner**

Wednesday, 2015.01.28

Chair: G. Logan			
08:30	A. Blazevic	(15+5 min)	The experimental infrastructure for plasma physics at FAIR
08:50	V. Bagnoud	(15+5 min)	A 100 J laser for day-one experiment at FAIR
09:10	D. Varentsov	(15+5 min)	Beam time commissioning of the PRIOR prototype at GSI
09:30	P. Neumayer	(15+5 min)	Diagnosing dense plasmas at FAIR using laser-generated x-rays
09:50	J. Ren	(15+5 min)	Dynamic vacuum simulation following the target evaporation @ plasma physics terminal of FAIR
10:10–10:30			**Coffee break**
Chair:			
10:30	I. Lomonosov	(15+5 min)	Numerical modeling of FAIR 1st day experiments in the critical point region
10:50	M. Endres	(15+5 min)	A light-gas driver for studies on matter properties at FAIR
11:10	V. Mintsev	(20+5 min)	Intense particle beams and nonideal plasma
11:35	Y. Zhao	(20+5 min)	Progress in HEDP research at IMP-Lanzhou
12:00	M. Yeung	(15+5)	Temporal gating of attosecond pulse trains in the relativistic regime
12:20–16:00			**Lunch break**
16:00-16:30		**Conference Business Meeting**	
16:00–17:45		**Poster session**	
20:00			**Conference dinner at Hotel Birkenhöhe**

Thursday, 2015.01.29

Chair: D. Varentsov			
08:30	B.R. Lee	(15+5 min)	Generation of magnetized collisionless shock In a large laboratory plasma
08:50	N. Andreev	(15+5 min)	Capillary guided LWFA at broken cylindrical symmetry
09:10	M.B Schwab	(15+5 min)	Optical probing of laser wakefield acceleration experiments
09:30	L. Shestov	(15+5 min)	PANTERA-Proton Therapy and Radiography
09:50	G.A. Vergunova	(15+5 min)	1D model for indirect target compression under conditions close to the NIF laser facility
10:10–10:40			**Coffee break**
Chair: R. Piriz			
10:40	D. Schumacher	(15+5 min)	Reaching for highest ion beam intensities through laser ion acceleration and beam compression
11:00	D. Seipt	(15+5 min)	Narrowband inverse Compton scattering x-ray sources at high laser intensities
11:20	S. Kuschel	(15+5 min)	Demonstration of plasma lensing at the JETI laser
11:40	J. Farmer	(15+5 min)	Raman amplification in the strong wavebreaking regime
12:00	W.M. Wang	(15+5 min)	magnetically assisted fast ignition
12:20–17:00			**Lunch break**
Chair: A. Blazevic			
17:00	A. Tauschwitz	(20+5 min)	Approach to EOS measurements along the binodal in ion-beam heated matter
17:25	J. Helfrich	(20+5 min)	Investigation of warm dense carbon in the 100-200 GPa regime
17:50	K. Khishchenko	(15+5 min)	Multiphase equation-of-state model for carbon at high pressures and temperatures
18:10	I. Iosilevskiy	(20+5 min)	Properties of high-temperature phase diagram And critical point parameters insilica
18:35	T. Stöhlker	(20+5 min)	Status of APPA at FAIR: From fundamental to applied research
19:00			**Dinner**

Friday, 2015.01.30

Chair:			
08:30	D. Casas	(15+5 min)	Interaction of proton beams with partially ionized plasmas
08:50	G. Xu	(15+5 min)	Inductively coupled plasma stripper for FAIR
09:10	A. Savel'ev	(15+5 min)	Prepulse controlled relativistic electron laser acceleration
09:30	P. Thanh Luu	(15+5 min)	Particle merging algorithm for PIC codes by using Voronoi
09:50	E. Son	(15+5 min)	Degradation spectra of electrons and ions in gases and warm matter
10:10	C. Maurer	(15+5 min)	Heavy ion induced desorption measurements on cryogenic targets
10:30–10:45			**Coffee break**
Chair:			
10:45	C.V. Meister	(15+5 min)	Transport coefficients in dense plasmas. The influence of the structure factor
11:05	W. Cayzac	(15+5 min)	Ion energy loss at the stopping-power maximum in a laser generated plasma
11:25	L.-F. Cao	(15+5 min)	Novel soft x-ray monochromator for ICF application
11:45	V. Saxena	(15+5 min)	Modeling of picosecond-time evolution of a nanoplasma created from an XFEL irradiated cluster
12:05	Ch. Ruyer	(15+5 min)	Studies of electron beam filamentation
12:25		**Concluding remarks**	

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Poster Session

01	Barriga-Carrasco, Manuel	Calculation of argon energy loss in carbon plasma
02	Cha, Seongwoo	0.5 mJ @ 10 kHz / < 10 ns regenerative amplifier with a single frequency seeder
03	Gardlowski, Philipp	Application of High Current Pulsed Quadrupole Magnets for Final Focussing at HHT
04	Günther, Marc	Refractive behavior of matter at gamma ray energies - Status of experimental investigations
05	Haas, Oliver	Simulation studies of plasma-based charge strippers for heavy ion beams
06	Hilbert, Vinzenz	Resolving ultrafast heating of dense cryogenic hydrogen
07	Hollatz, Dominik	PIC simulations of plasma lensing
08	Jahn, Diana	Development of a diamond detector for temporal profile measurements of sub-ns intense ion bunches
09	Jiang, Bowen	Ion structure factor in mean spherical approximation
10	Kantsyrev, Alexey	An 300-MeV proton microscopy facility (proposal)
11	Lin, Chengliang	Rydberg atoms in dense plasma
12	Liseykina, Tatyana	Ion Acoustic collisionless shocks with reflected ions
13	Meister, Claudia-Veronika	Application of the ideal MHD energy principle to pressure driven modes
14	Rodionova, Maria	High energy proton microscopy of underwater electrical wire explosion
15	Rosmej, Sebastian	Conductivity of warm dense matter _ influence of ee-collision
16	Schanz, Martin	Study on radiation damage in permanent magnet quadrupoles
17	Schmidt, Peter	Optimum parameters for radiation pressure acceleration
18	Seidel, Andreas	Contrast enhancement at the POLARIS laser
19	Tietze, Stefan	Plasma surface dynamics and carrier-envelope phase effects during the interaction of intense
20	Ulrich, Andreas	Particle beam induced emission from liquid argon-xenon mixtures
21	Wagner, Florian	Temporal contrast control at the PHELIX laser facility
22	Zou, Debin	Dynamic control of laser-accelerated protons from a guiding cone