

**32nd International Workshop on Physics of High Energy Density in Matter
Hirschegg, January 29th – February 3rd, 2012**

Monday, 30.01.2012

CHAIR: A. R. Piriz

08:30	Opening (20 min)	
08:50	S. Glenzer (25+5 min)	Update on ICF experiments at the NIF
09:20	J-L Miquel (25+5 min)	Overview of LMJ and PETAL projects
09:50	K. Schoenberg (25+5 min)	Update on the MARIE 1.0 Facility at LANL for extreme matter research

Coffee Break 10:20 – 10:45

CHAIR: N. A. Tahir

10:45	B. Canaud (25+5 min)	Direct-drive shock ignition for the LMJ: Status and prospects
11:15	J. Honrubia (25+5 min)	Evidence of fast electron collimation in cylindrically compressed matter
11:45	C. Deutsch (25+5 min)	Electron-ion pseudopotentials in helium-like dense matter plasmas
12:15	S. Weng (25+5 min)	Mechanism for relativistic laser pulse propagation: holes boring or relativistic transparency?

Lunch Break 12:45 – 17:00

CHAIR: D. Hoffmann

17:00	A. Becker (20+5 min)	Material Properties along a Jupiter adiabat derived from ab initio calculations
17:25	T. Bornath (15+5 min)	Ionic Structure factors
17:45	B. Holst (20+5 min)	Modelling heating of metals by ultra-short pulses using ab initio simulations
18:10	K. Khishchenko (20+5 min)	Temperature and heat capacity of hydrocarbons in strong shock waves
18:35	P. Levashov (20+5 min)	DFT and quantum molecular dynamics of thermodynamic and optical properties of warm dense matter

Dinner 19:00

HEDgeHOB Meeting 20:15

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Tuesday, 31.01.2012

CHAIR: C. Deutsch

08:30	M. Murakami (20+5 min)	Super-multi-dimensional shock compression of matter and its implications to ICF
08:55	R. Ramis (20+5 min)	Implosion symmetry analysis of ICF direct drive targets
09:20	G. Shvets (25+5 min)	Rayleigh-Taylor instability of laser-driven targets and its effects on ion acceleration
09:50	J. G. Wouchuk (25+5 min)	Hydrodynamic flows generated by rippled shock waves

Coffee Break 10:20 – 10:45

CHAIR: P. Mulser

10:45	I. Hofmann (25+5 min)	Status of ICFA-ICUIL task force activity on high power laser technology for advanced accelerator concepts
11:15	B. G. Logan (25+5 min)	Exploring the X-target: research opportunities
11:45	B. Sharkov (25+5 min)	FAIR
12:15	N. A. Tahir (25+5 min)	High Energy Density Physics research using FAIR and HiRadMat facilities

Lunch Break 12:45 – 17:00

CHAIR: J. G. Wouchuk

17:00	V. Bagnoud(20+5 min)	Status report on the PHELIX facility
17:25	S. Busold (20+5 min)	The LIGHT project: Results of the first experimental campaign at Z6
17:50	P. Ni (20+5 min)	NDCX-II user facility for HEDLP research. Polarization pyrometry as a new temperature diagnostic
18:15	M. Povarnitsyn (15+5 min)	Virtual Laser Laboratory: Online simulation of laser experiments
18.35	K. Lan (20+5 min)	Recent studies on hohlraum physics

Dinner 19:00

Business Meeting 20:15

Workshop on X-target 20:30

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Wednesday, 01.02.2012

CHAIR: G. Logan

08:30	I. Iosilevskiy (15+5 min)	"Phase freezeout" in isentropically expanding warm dense matter
08:50	N. Andreev (20+5 min)	Acceleration of electrons and hard X-ray generation under the action of short intense laser pulses
09:15	P. Mulser (20+5 min)	Collisionless laser beam absorption: Analysis of models, present understanding, fast electron spectra, regimes and scaling laws
09:40	H. Ruhl (20+5 min)	Imploding microsphere at extreme laser irradiation
10:05	V. Mintsev (20+5 min)	Reflectivity of dense shock-compressed Xe plasma

Coffee Break 10:30 – 10:45

CHAIR: T. Schlegel

10:45	S. Fuchs (15+5 min)	Optical coherence tomography using broad bandwidth XUV and soft x-ray radiation
11:05	Y. Krasik (15+5 min)	Underwater electrical wire explosion and generation of strong converging shock waves
11:25	D. Kraus (15+5 min)	X-ray Thompson scattering on shocked graphite
11:45	J. Vorberger (15+5 min)	Structure and energy transfer in warm dense matter
12:05	A. Frank (15+5 min)	Energy loss and charge-transfer of argon ions in carbon plasma generated by two-sided laser irradiation
12:25	V. Fortov (20+5 min)	Strongly Coupled Plasma generated by Intense Shock Waves

Lunch Break 12:50 – 17:00

CHAIR: V. Fortov

17:00	D. Autrique (15+5 min)	A hydrodynamic model for pulsed ns-laser ablation of metals
17:20	U. Zastra (15+5 min)	X-ray Spectroscopic Studies of Dense Plasmas at High-Intensity Lasers and X-ray FELs
17:40	E. Pérez Alvaro (15+5 min)	Relativistic filamentation instability in an arbitrarily oriented magnetic field

**Conference Dinner 20:15
at the Hotel Birkenhöhe, Hirschegg**

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Thursday, 02.02.2011

CHAIR: D. Gericke

08:30	G. Hoffmeister (15+5 min)	Effects of fs-laser desorption on the TNSA
08:50	Z. Lecz (15+5 min)	Effect of the proton layer thickness on the TNSA
09:10	J. Meyer-ter-Vehn (20+5 min)	Generation of giant single attosecond pulses using ultra-thin foils
09:35	A. Pukhov (20+5 min)	Proton beam –driven plasma wake fields
10:00	T. Schlegel (20+5 min)	Classical radiation effects on relativistic electrons in ultraintense laser fields

Coffee Break 10:25 – 10:45

CHAIR: N. Andreev

10:45	M. Arrayás (15+5 min)	Branching in electric discharges
11:05	V. Efremov (20+5 min)	Investigation of laser detonation in transparent dielectrics
11:30	J. L. Trueba (20+5 min)	Photoionization effects in ionization fronts
11:55	M. Moll (20+5 min)	Inverse bremsstrahlung heating in atomic clusters irradiated by femtosecond laser pulses
12:20	D. Gericke (20+5 min)	Properties of warm dense matter probed by x-ray scattering

Lunch Break 12:45 – 15:15

Poster Session 15.15 – 17:15

Convivial Evening at the Sonna-Alp in Mittelberg 19:00

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Friday, 03.02.2012

CHAIR: M. Roth

08:30	T. Rienecker (20+5 min)	Energy losses in x-ray heated foam plasmas
08:55	G. Vergunova (20+5 min)	The properties of the plasma produced by the heating of porous matter under x-ray irradiation
09:20	P. Sperling (20+5 min)	Simulation of time resolved pumped probe Thompson scattering experiments at FLASH facilities
09:45	T. Tückmantel (20+5 min)	New H-VLPL hybrid code for proton driven wave field simulations

Break 10:10 – 10:25

CHAIR:

10:25	A. Ortner (15+5 min)	Energy loss in indirect heated plasma in double hohlraum structures
10:45	D. Varentsov (15+5 min)	Progress on the PRIOR and PaNTERA projects at GSI
11:05	V. Sultanov (15+5 min)	Simulations of Beam Stripper for Fast Ion–Slow Ion Collision
11:25	M. Veysman (15+5 min)	Thermodynamical models for laser-heated solids with account for inner electrons excitation
11:45		Concluding Remarks

THE END

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Poster Presentations		
1	Aurand, Bastian	Mono energetic multi-ion species acceleration from ultra-thin polymer foils
2	Barriga-Carrasco, Manuel D.	Proton energy loss in plasmas due to free and bound electrons
3	Borovikov, Dmitry	Isentropic expansion of a fluid with van der Waals equation of state
4	Casas, David	Proton energy loss in plasmas due to free and bound electrons
5	Cayzac, Witold	Experimental investigation of the ion energy loss in the low velocity regime
6	Deppert, Oliver	Particle-In-Cell simulations in the TNSA regime with complex target geometries
7	Di Lucchio, Laura	Dynamic stabilization of Rayleigh-Taylor instability of an ablation front
8	Ecker, Boris	Recent developments on X-ray lasers at GSI
9	Edie, Donald	Energy transfer processes in burning fusion plasmas.
10	Faik, Steffen	Radiation-hydrodynamic calculations for ion-stopping experiments at GSI
11	Grushin, Alexander	Warm dense matter opacity simulation
12	Hilbert, Vinzenz	Ultrafast Dynamics in Dense Hydrogen explored at FLASH
13	Hochhaus, Daniel	X-ray Radiography on High Energy-Density Plasmas
14	Huete, Cesar	Interaction of planar shock waves with non uniform flows
15	Hug, Alexander	Data acquisition for HEDP experiments
16	Huthmacher, Klaus	Dynamics of electrons in liquid water excited with an ultra-short VUV laser pulse
17	Jaeger, Robert	Target development and metrology for laser driven ion acceleration
18	Kantsyrev, Alexey	Status of the proton radiography at ITEP.
19	Kolesnikov, Sergey	Proton Radiography of Dense Plasma
20	Lang, Philipp-M.	The detector for the PRIOR proton microscope
21	Lomonosov, Igor	Reference data in WDM region: shock-wave data base
22	Lopez Cela, Juan Jose	
23	Maeder, Richard	Energy losses in Plasma-Targets
24	Medvedev, Nikita	Ultrafast processes in dielectrics under VUV-XUV femtosecond laser pulse irradiation
25	Moschüring, Nils	New Simulation Framework for Extended Vlasov Equations
26	Otto, Johanna	Opacity Measurements in Warm Dense Matter
27	Rodríguez Prieto, Gonzalo	Experimental Exploding Wire Dimensionless Relations

28	Schaumann, Gabriel	Target Fabrication at Darmstadt University
29	Thomas, Johannes	Progress in building (all-)round models for electron acceleration
30	Udrea, Serban	Geometrical Corrections for Electrical Conductivity Measurements of Heavy Ion Beam Induced Warm Dense Matter
31	Ulrich, Andreas	Perspectives for high power density in dense gases induced by low energy electron beams
32	Wuensch, Kathrin	Effective ion-ion potentials applied to XRTS
33	Wünsche, Martin	Efficiency of relativistic surface high harmonic generation using optimized plasma scale lengths
34	Xu, Ge	Energy transfer efficiency and electron density of spherical theta- pinch device
35	Shestov, Lev	Proton Therapy and Radiography
36	Moses, Ronald	Chromatic Aberration Minimization in Proton Radiography