

Merry Christmas & A Happy New Year

We wish all members of the HI-Jena and their families a merry christmas and a good start in 2012.



STIFT-Preis 2011 für anwendungsorientierte Forschung an Thüringer Hochschulen

Dr. rer. nat. Jan Rothhardt, has received the STIFT-award for his PhD thesis on “Hochleistungs-Ultrakurzpulslase auf Basis Faserlaser-getriebener optisch parametrischer Verstärkung“.

<http://www.stift-thueringen.de/aktuelles/news/artikel/article/stift-preis-2011-fuer-anwendungsorientierte-forschung-an-thueringer-hochschulen.html>

Save the date: 2nd Common Meeting of the HI-Jena is now scheduled for January, 11

Reminder: All members of the HI-Jena are cordially invited to the second common meeting of the HI-Jena on January, 11 at the Jenoptik Lecture Hall, Helmholtzweg 5 in Jena. The event will start at 4 pm. After the presentations we will continue the discussions in an informal atmosphere until about 9 pm.

Each research group will contribute with a few talks to present their current activities.



December 2011

Reminder: HI-Jena member list is now online!

The contact information of all members of the HI-Jena are now online: <http://www-ap.gsi.de/jena/people/>
Please check if the entries are correct and complete.

Reminder: Lecture/Teaching data base is starting!

All members of the HI-Jena are invited to enter their **seminar talks/conference talks/teaching lectures** at: <http://www-ap.gsi.de/jena/talks/>
Please provide us with all your contributions since the beginning of your membership to the HI-Jena.

Seminars and Meetings at the HI-Jena

Please note: All seminars are taking place in the **new seminar room of the HI-Jena (room 205, Fröbelstieg 3)**.

Atomic Physics Online Seminar at GSI

It takes place every Wednesday at 11:00 a.m at GSI. The videotransmission of this seminar is shown in the seminar room of the HI-Jena. This seminar allows a regular scientific exchange even though the partner institutes are widespread.

PhD/Postdoc of the HI-Jena

The next meeting takes place on January 19.
Athena Evalour Paz

Member Meeting of the HI-Jena

The next meeting takes place on January 26.
Martino Trassinelli, Univ. Paris

CS Workshop at the HI-Jena

The experiment control system group @ GSI and Ultraoptics-POLARIS group @ Helmholtz-Institut-Jena would like to invite you to a workshop dedicated to the CS framework. It will take place on February 10-11, 2012 at HI-Jena. The workshop starts on Thursday after lunch and concludes with a final discussion on Friday before lunch.

Further information: <http://wiki.gsi.de/cgi-bin/view/CSframework/CsWorkshopFebruary2012>



Further Events

32nd International Workshop on Physics of High Energy Density in Matter in Hirschegg, Austria

Building on a tradition dating back more than 30 years, both - The Technical University of Darmstadt and the GSI Helmholtz Centre Darmstadt - invite you to participate in the 32rd Hirschegg Workshop on High Energy Density Physics with Intense Ion and Laser Beams. The workshop is recognized as an international forum to discuss high energy density physics including fundamental science and inertial confinement fusion. Following the tradition of the "Hirschegg Workshops", the special atmosphere and schedule will provide enough time for discussions among participants. The conference organisation does especially encourage the participation of young researchers and students. The workshop will take place from January 29 to February 3.

Further information can be found here: http://www.gsi.de/forschung/pp/dates/hirschegg/index_e.html

31st E A S – "Extreme Atomic Systems" conference: February 5 - 10, 2012

Modern Atomic Physics witnesses a fast progress towards extreme conditions, in the ultracold and the ultrafast. To explore these new parameter regimes is the common scheme of this atomic physics meeting.

Each participant can give a talk of up to 20 minutes, time for discussing is provided. Recent topics, defined by the participants, include:

- dynamics of atoms, molecules and clusters under light from new sources (XFEL sources and attosecond pulses)
- coherent diffraction imaging
- QED and relativistic effects
- ultracold complex atomic dynamics
- ultracold Rydberg interactions
- entanglement of ions and electrons or light and matter
- technological developments and new measurement tools
- and much more

Further information can be found here: <http://www.pks.mpg.de/~eas/>



HGS-HIRe SUMMER STUDENT PROGRAM at GSI, Aug. 6 - Sep. 28, 2012

During the summer months of 2012 HGS-HIRe and GSI organise a Summer Student Program which is offered to a limited number of students in physics or related natural science disciplines from Europe or GSI/FAIR partner countries. GSI, the German research center for heavy-ion physics, is one of the world's leading accelerator laboratories for basic research with accelerated ions. In cooperation with an international research community the existing accelerator complex will be significantly extended by a new Facility for Antiproton and Ion Research (FAIR). The center provides unique research opportunities for investigations in the fields of hadronic and nuclear physics, nuclear astrophysics, atomic, laser, and plasma physics, materials science, and biophysics with applications to cancer therapy, new accelerator developments and radiation safety.

Detailed information about the research centre can be found here: <http://hgs-hire.de/summer-program/>

Recent Publications

PEBSI – A Monte Carlo simulator for bremsstrahlung arising from electrons colliding with thin solid-state targets

G. Weber, R. Martin, A. Surzhykov, M. Yasuda, V.A. Yerokhin and Th. Stöhlker
NIM B (2011)

<http://www.sciencedirect.com/science/article/pii/S0168583X11009876>

doi: 10.1016/j.nimb.2011.10.048

Laser accelerated protons captured and transported by a pulse power solenoid

T. Burris-Mog, K. Harres, F. Nürnberg, S. Busold, M. Bussmann, O. Deppert, G. Hoffmeister, M. Joost, M. Sobiella, A. Tauschwitz, B. Zielbauer, V. Bagnoud, T. Herrmannsdoerfer, M. Roth, and T. E. Cowan
Phys. Rev. ST Accel. Beams 14, 121301 (2011)

<http://link.aps.org/doi/10.1103/PhysRevSTAB.14.121301>

doi: 10.1103/PhysRevSTAB.14.121301

Proton probe measurement of fast advection of magnetic fields by hot electrons

L. Willingham, A. G. R. Thomas, P. M. Nilson, M. C. Kaluza, S. Bandyopadhyay, A. E. Dangor, R. G. Evans, P. Fernandes, M. G. Haines, C. Kamperidis, R. J. Kingham, S. Minardi, M. Notley, C. P. Ridgers, W. Rozmus, M. Sherlock, M. Tatarakis, M. S. Wei, Z. Najmudin, and K. Krushelnick
Plasma Physics and Controlled Fusion 53, 124026 (2011)

<http://iopscience.iop.org/0741-3335/53/12/124026>

doi:10.1088/0741-3335/53/12/124026



December 2011

1 MHz repetition rate hollow fiber pulse compression to sub-100-fs duration at 100 W average power

Jan Rothhardt, Steffen Hädrich, Henning Carstens, Nicholas Herrick, Stefan Demmler, Jens Limpert, and Andreas Tünnermann
Optics Letters 36, 4605 (2011)

<http://www.opticsinfobase.org/abstract.cfm?URI=ol-36-23-4605>

doi:10.1364/OL.36.004605

Energy dispersion in radiation pressure accelerated ion beams

M Grech, S Skupin, A Diaw, T Schlegel and V T Tikhonchuk
New Journal of Physics 13 123003 (2011)

<http://iopscience.iop.org/1367-2630/13/12/123003>

doi:10.1088/1367-2630/13/12/123003

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