



The Fifth Workshop on Plasma Physics with Intense Laser and Heavy Ion Beams for FAIR

In the frame of German year in Russia 2012/2013

Workshop Program, October 8, 2012



Opening Ceremony 10:00

Introductory words by K. V. Khishchenko, O. F. Petrov, O. N. Rosmej

Chairman

Dr. Habil. O. N. Rosmej

- 10:05 A laser at FAIR
Kuehl Thomas Uwe (GSI, Darmstadt, Germany), Bagnoud V., Blazevich A., Eisenbarth U., Cowan Th., Stoehlker Th.
- 10:30 Experimental activities on laser-produced plasmas at the CELIA laboratory
Santos Joao Jorge (CELIA, University of Bordeaux, Talence, France)
- 10:55 Hard X-ray emission under the action of short intense laser pulses
Andreev Nikolay Evgen'evich (JIHT RAS, Moscow, Russia), Agranat M. B., Chefonov O. V., Ovchinnikov A. V., Rosmej O. N.
- 11:10 Generation of K-alpha x rays in a foil by relativistic laser-produced hot electrons
Kostenko Oleg Fedotovitch (JIHT RAS, Moscow, Russia), Andreev N. E.
- 11:35 Wide-range model for simulation of the laser-matter interaction
Povarnitsyn Mikhail Evgen'evich (JIHT RAS, Moscow, Russia), Andreev N. E., Khishchenko K. V., Levashov P. R., Rosmej O. N.

12:00  **COFFEE-BREAK**

Chairman

Prof. Th. U. Kuehl

- 12:15 Hydrodynamics and radiation properties of X-ray heated low density foams
Rosmej Olga Nikolaevna (GSI, Darmstadt, Germany)
- 12:40 Theoretical and experimental studies of radiative and gas-dynamic processes in plasma and their applications to laser and heavy ion beams experiments
Orlov Nikolay Yurievich (JIHT RAS, Moscow, Russia), Vergunova G. A., Rosmej O. N.
- 13:05 Reactor target activity in Russia
Borisenko Nataliya Glebovna (LPI RAS, Moscow, Russia), Merkuliev Yu. A.
- 13:30 Proposed investigations on WDM with PHELIX facility and X-ray diagnostics
Pikuz Sergey Alexeevich (JIHT RAS, Moscow, Russia), Skobelev I. Yu., Faenov A. Ya., Pikuz T. A., Fokin D. A.

13:50–
14:40  **LUNCH**



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Afternoon Session 14:40


Chairman

Dr. K. V. Khishchenko

- 14:40 Interaction of highly charged ions with surfaces: new methods and diagnostics
Shevelko Alexander Petrovich (LPI RAS, Moscow, Russia)
- 15:05 Spectroscopy studies on X-ray radiation of heavy multicharged ions excited by sub kJ laser pulses
Skobelev Igor Yurievich (JIHT RAS, Moscow, Russia), Pikuz S. A., Faenov A. Ya., Pikuz T. A., Fokin D. A.
- 15:25 Study of matter properties at negative pressures using picosecond laser pulses
Stuchebrukhov Igor Alexandrovich (GPI RAS, Moscow, Russia), Abrosimov S. A., Bazhulin A. P., Voronov V. V., Pashinin P. P., Semenov A. Yu., Krasnyuk I. K., Khishchenko K. V.
- 15:50 Strongly correlated plasma interaction with laser radiation
Zaporozhets Yury Borisovich (IPCP RAS, Chernogolovka, Russia), Mintsev V. B., Gryaznov V. K., Winkel M., Reinholz H., Röpke G., Fortov V. E.
- 16:15  **COFFEE-BREAK**

Chairman

Prof. N. E. Andreev

- 16:35 On a possibility of generation of thermonuclear-burning wave using laser
Khishchenko Konstantin Vladimirovich (JIHT RAS, Moscow, Russia), Charakhchyan A. A.
- 17:00 Vacuum target chamber for experiment HIHEX
Shilkin Nikolay Sergeevich (IPCP RAS, Chernogolovka, Russia)
- 17:25 "Phase freezeout" in isentropically expanding warm dense matter
Iosilevskiy Igor L'vovich (JIHT RAS, Moscow, Russia), Borovikov D. S.
- 17:50 Study of shock waves in porous materials by using of synchrotron radiation
Efremov Vladimir Petrovich (JIHT RAS, Moscow, Russia), Ten K. A., Fortov V. E., Prueel E. R., Lukyanchikov L. A., Tolochko B. P., Zhulanov V. V., Shehtman L. I.
- 18:05–18:15 **Concluding words by N. E. Andreev, O. N. Rosmej, K. V. Khishchenko**
- 19:00–23:00  **WORKSHOP DINNER**

Workshop Program, October 9, 2012

Round Table 10:30

Chairman

Prof. N. E. Andreev

- 10:30–14:00 FAIR-relevant proposals for PHELIX-laser and/or accelerator (October–December 2013, January–March 2014)