

DPG School on Physics

supported by the Wilhelm and Else Heraeus-Foundation

Free-electron X-ray Laser Physics

15 – 20 September, 2013, Physikzentrum Bad Honnef, Germany

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Subjects:

- Fundamentals of X-ray physics
- Fundamentals of free-electron lasers
- Status and prospects of X-ray laser physics
- Interaction with matter
- Coherent imaging

Confirmed Speakers:

- Rafael Abela (Paul Scherrer Institute)
- Louis DiMauro (The Ohio State University)
- Roger Falcone (Berkeley)
- Josef Feldhaus (DESY)
- Gianluca Geloni (European XFEL)
- Tetsuya Ishikawa (RIKEN SPring-8)
- Franz Kärtner (DESY)
- Jens Limpert (Friedrich Schiller University Jena)
- Ralf Röhlsberger (DESY)
- Nina Rohringer (DESY)
- Jörg Rossbach (DESY)
- Ilme Schlichting (MPI Heidelberg)
- Peter Schmüser (DESY)
- Christian Schroer (TU Dresden)
- Joachim Ullrich (PTB Braunschweig)

The advent of the first free-electron X-ray lasers, FLASH in 2004 and LCLS in 2009, may prove to be the most profound development since the invention of the laser and, equally, the synchrotron. Sharp improvements in a number of laser parameters, most notably intensity and pulse duration, support this expectation. This brings scientific dreams within reach, that have inspired scientists since decades: The spectrum ranges from nonlinear X-ray optics to X-ray structural analysis of individual macro molecules. Indeed, the unprecedented opportunities and expectations have triggered considerable investments and research activities worldwide. By the end of the decade, a dozen of X-ray laser facilities can be expected to be operational. The School will bring together scientists who have played a leading role in developing and applying free-electron X-ray lasers. The primary goal is teaching the fundamentals of free-electron laser to young scientists and providing them with an overview of the present status X-ray free-electron laser science.

Fees:

Covering full board and lodging at the Physikzentrum Bad Honnef
200 € (for DPG members 100 €).



Physikzentrum Bad Honnef

Application & more information:

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