



340th Wilhelm und Else Heraeus-Seminar

HIGH-FIELD ATTOSECOND PHYSICS

January 9–15, 2005, Universitätszentrum, Obergurgl, Austria

The seminar is cosponsored by the University of Innsbruck, ADLIS (Advanced Light Sources, Vienna Institute of Technology, Photonics Institute), and the Max-Born-Institut für nichtlineare Optik und Kurzpulsspektroskopie.



The physics of atoms in intense laser fields allows the generation of coherent uv pulses with a duration in the attosecond regime. Progress in laser technology has enabled making intense infrared pulses with a duration as short as one cycle and with controlled shape. By themselves or taken together, these developments will allow imaging in time and space of the electronic motion in atoms and molecules with a resolution on the subfemtosecond second and the subangstrom scale. Pioneering experiments have already been carried out in order to estimate the potential of these unprecedented tools, and novel theoretical concepts and methods are needed for their interpretation and design.



The seminar will bring together leading experimentalists and theorists in this exciting field to present in invited talks their cutting-edge research and to sketch the directions of future work. Younger scientists will have the opportunity to display their work in poster sessions. The seminar will take place in the invigorating high-altitude environment of the inner Oetzal with its unsurpassed snow conditions and hours of sunshine.

Confirmed speakers include:

P. Agostini (CEA Saclay, France)	M. Lein (MPIPKS Dresden, Germany)
A.D. Bandrauk (U. Sherbrooke, Canada)	P. Knight (Imperial College, London, UK)
A. Becker (MPIPKS Dresden, Germany)	C.D. Lin (Kansas State U., USA)
H.C. Bryant (U. New Mexico, USA)	A. Maquet (U. P. et M. Curie, Paris, France)
J. Burgdörfer (Vienna Techn. U., Austria)	J. Marangos (Imperial College, London, UK)
D. Charalambidis (FORTH, Heraklion, Greece)	D.B. Milosevic (U. Sarajevo, Bosnia and H.)
P.B. Corkum (NRC, Ottawa, Canada)	R. Moshhammer (MPI Heidelberg, Germany)
R. Dörner (U. Frankfurt, Germany)	M. Murnane (U. Colorado, USA)
J.H. Eberly (U. Rochester, USA)	G. G. Paulus (Texas A&M, USA)
F.H.M. Faisal (U. Bielefeld, Germany)	H.R. Reiss (American U., USA)
M.V. Fedorov (GPI, Moscow, Russia)	J.M. Rost (MPIPKS Dresden, Germany)
H.P. Helm (U. Freiburg, Germany)	H. Rottke (MBI Berlin, Germany)
M.Yu. Ivanov (NRC, Ottawa, Canada)	R. Sauerbrey (U. Jena, Germany)
U. Jentschura (U. Freiburg, Germany)	K. Schafer (Louisiana State U. USA)
H.C. Kapteyn (U. Colorado, USA)	O. Smirnova (Vienna Techn. U., Austria)
F. Krausz (MPQ Garching, Germany)	A.F. Starace (U. Nebraska, USA)

The seminar is organized by Wilhelm Becker (Max-Born-Institut, Berlin, Germany), Thomas Brabec (University of Ottawa, Canada), Fritz Ehlötzky (University of Innsbruck, Austria), Wolfgang Sandner (Max-Born-Institut, Berlin, Germany), and Armin Scrinzi (Vienna University of Technology).

For more information, please, contact

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