



# TeraHertz Dynamics probed with X-rays

10-12 September 2007, Grenoble

## Monday, 10<sup>th</sup> September

8:30 – 9:00	Registration	
9:00 – 9:15	Welcome Address	<b>F. Sette</b> , <i>Research Director</i> ESRF, Grenoble, France
<b>Session 1 – Chair: J. Goulon</b>		
9:15 – 10:00	Time-resolved experiments at the European X-ray Free-Electron Laser Facility	<b>M. Altarelli</b> XFEL Project Team / DESY Hamburg, Germany
10:00 – 10:45	Generation of short X-ray pulses on Synchrotron Radiation Sources	<b>L. Farvacque</b> ESRF, Grenoble, France
10:45 – 11:00	<i>Coffee Break</i>	
<b>Session 2 – Chair: P. Elleaume</b>		
11:00 – 11:45	Coherent Terahertz Radiation from Electron Storage Rings	<b>J. Byrd</b> Lawrence Berkeley National Laboratory, USA
11:45 – 12:30	4GLS – the UK's Fourth Generation Light Source Project; opportunities for probing dynamics with THz radiation	<b>W. Flavell</b> CCLRC Daresbury Lab, UK
12:30 – 14:00	<b>Lunch at the ESRF/ILL Restaurant</b>	
<b>Session 3 – Chair: L. Farvacque</b>		
14:15 – 15:00	Terahertz FELs developed by BINP	<b>S.V. Miginsky</b> Budker Institute of Nuclear Physics, Novosibirsk, Russia
15:00 – 15:45	A compact THz free-electron laser and its applications on imaging and spectroscopy	<b>Y.U. Jeong</b> KAERI, Daejeon, Korea
15:45 – 16:15	<i>Coffee Break</i>	
<b>Session 4 – Chair: J. Jacob</b>		
16:15 – 17:00	Development of high power THz gyrotrons in Russia	<b>V.E. Zapevalov</b> Russian Acad. of Sciences Nizhny Novgorod, Russia
17:00 – 17:45	Development of THz gyrotrons and their applications to high power THz technologies	<b>T. Idehara</b> Research center for development of FIR, Fukui University, Japan
17:45 – 18:30	High power mm-wave sources	<b>A. Durand</b> THALES-ED Velizy, France
18:30	<i>Welcome Cocktail</i>	

**Tuesday, 11<sup>th</sup> September**

<b>Session 5 – Chair: A. Fontaine</b>		
9:00 – 9:45	X-ray magnetic circular dichroism: Probe of <i>local</i> magnetism	<b>F. Wilhelm</b> ESRF, Grenoble, France
9:45 – 10:30	X-ray detected magnetic resonance up to THz precession frequencies?	<b>J. Goulon</b> ESRF, Grenoble, France
10:30 – 11:00	<i>Coffee Break</i>	
<b>Session 6 – Chair: Y. Petroff</b>		
11:00 – 11:45	Combining FEL with high magnetic fields: High frequency, time domain, electron magnetic resonance	<b>L.C. Brunel</b> NHMFL, Tallahassee, USA
11:45 – 12:30	TeraHertz spectroscopy under high magnetic field up to 40T	<b>M. Goiran</b> CNRS, Toulouse, France
12:30 – 14:00	<i>LUNCH</i>	
<b>Session 7 – Chair: J. Miltat</b>		
14:00 – 14:45	Femtosecond magneto-optical Kerr microscopy	<b>J.Y. Bigot</b> IPCMS-GONLO Strasbourg, France
14:45 – 15:30	Ultrafast opto-magnetism and coherent control of magnetic order	<b>A. Kirilyuk</b> U. Nijmegen, Netherlands
15:30 – 16:15	The magneto-optical Barnett effect: Key to ultra-fast magnetization reversal by circularly polarized light	<b>J. Hohlfeld</b> Seagate Research Pittsburgh, USA
16:15 – 16:45	<i>Coffee Break</i>	
<b>Session 8 – Chair: E. Kats</b>		
16:45 – 17:30	Terahertz spectroscopy and magnetoelectric excitations in rare-earth manganites	<b>A. Pimenov</b> Univ. Augsburg, Germany
17:30 – 18:00	Optical activity probed with X-rays	<b>Ch. Brouder</b> IMPMC, CNRS, Paris
18:00 – 18:30	X-ray detected electro-optical effects up to THz frequencies	<b>A. Rogalev</b> ESRF, Grenoble, France
19:30	<i>Workshop Dinner</i>	

**Wednesday, 12<sup>th</sup> September**

<b>Session 9 – Chair: F. Sette</b>		
8:45 – 9:15	Inelastic X-ray scattering experiments on disordered systems	<b>G. Monaco</b> ESRF, Grenoble, France
9:15 – 9:45	Nuclear Inelastic Scattering: a precise tool for accurate studies of atomic vibrations	<b>A. Chumakov</b> ESRF, Grenoble, France
9:45 – 10:15	Thermal diffuse scattering and terahertz spectroscopy	<b>A. Bosak</b> ESRF, Grenoble, France
10:15 – 10:45	Coffee Break	
<b>Session 10 – Chair: N. Brookes</b>		
10:45 – 11:30	Ultrafast TeraHertz spectroscopy of Cooper-pair and excitonic correlation dynamics	<b>R.A. Kaindl</b> Lawrence Berkeley Laboratories, USA
11:30 – 12:15	Coherent excitations and ultrafast phase transitions in complex solids studied with ultra-broadband femtosecond pulses	<b>A. Cavalleri</b> Oxford University, Merton College, UK
12:15 – 12:30	Concluding remarks	<b>Y. Petroff</b> Consultant to the French Ministry of Research