

WUPCOM '09

Winter School on Ultrafast Processes in Condensed Matter

22 – 27 February 2009,
Winklmoosalm, Reit im Winkl



Scientific Program

Winter School on Ultrafast Processes in Condensed Matter

22.02. – 27.02.2009, Winklmoosalm, Reit im Winkl

Scientific Program

Sunday, February 22

12:00 – 18:00	Arrival and rental of skiing equipment
18:30 – 19:00	Registration
19:00 – 20:00	Dinner

Monday, February 23

07:00 – 08:00	Breakfast
	<u>Morning Session</u> (Chair: U. Höfer)
08:15 – 08:45	Laurenz Rettig (<i>FU Berlin</i>), <i>Ultrafast electron dynamics in Pb/Si(111) quantum wells</i>
08:45 – 09:15	Kerstin Biedermann (<i>U Erlangen-Nürnberg</i>), <i>Decay of electronic states on Si(557)-Au studied by time-resolved two-photon photoemission</i>
09:15 – 09:45	Konrad von Volkmann (<i>FU Berlin</i>), <i>Temperature-dependent measurements of the carrier and phonon dynamics in HOPG and a comparison with naturally grown graphite</i>
10:00 – 15:30	<u>Outdoor Workshop</u>
	<u>Afternoon Session</u> (Chair: C. Frischkorn)
16:00 – 16:30	Uwe Bovensiepen <i>Magnon-Enhanced Phonon Damping at Gd(0001) and Tb(0001) Surfaces</i>
16:30 – 17:00	Kristian Döbrich (<i>MBI Berlin</i>), <i>Spin-resolved two-photon photoemission: Exchange scattering and hot electron lifetimes in 3d-ferromagnets</i>
17:00 – 17:30	Coffee Break
17:30 – 18:00	Jens Gütde (<i>U Marburg</i>), <i>Time-resolved two-color interferometric photoemission</i>

- 18:00 – 18:30 **Timm Rohwer** (*U Kiel*),
Ultrafast Photoemission - towards joint measurements with high harmonics and the FEL
- 19:00 – 20:00 Dinner
- 20:00 – More discussions ...

Tuesday, February 24

- 07:00 – 08:00 Breakfast
- Morning Session (Chair: M. Bauer)
- 08:15 – 09:00 **Gustav Bihlmayer** (*FZ Jülich*)
Rashba-type spin-orbit splitting in surface- and quantum-well states
- 09:00 – 09:15 Discussion
- 09:15 – 09:45 **Alexey Melnikov** (*FU Berlin*),
Femtosecond spin dynamics induced by ballistic transport of spin polarized carriers in Au/Fe/MgO(001)
- 10:00 – 15:30 Outdoor Workshop
- Afternoon Session (Chair: J. Güdde)
- 16:00 – 16:30 **Martin Wolf** (*FU Berlin*),
Photostimulated molecular switching at metal surfaces: TBA/Au(111)
- 16:30 – 17:00 **Manuel Marks** (*U Marburg*),
Electron dynamics at the PTCDA/Ag(111) Interface
- 17:00 – 17:30 Coffee Break
- 17:30 – 18:00 **Martin Weinelt** (*MBI Berlin*),
Scissoring charge transfer by resonant photoemission: the photoswitch tetra-tert-butyl-azobenzene on Au(111)
- 18:00 – 18:30 **Kristina Klač** (*U Marburg*),
SHG microscopy for femtochemistry studies of surfaces
- 19:00 – 20:00 Dinner
- 20:00 – More discussions ...

Wednesday, February 25

- 07:00 – 08:00 Breakfast
- Morning Session (Chair: M. Wolf)
- 08:15 – 09:00 **Rupert Huber** (*U Konstanz*),
Femtosecond physics of semiconductors in ultra-intense THz fields
- 09:00 – 09:15 Discussion
- 09:15 – 09:45 **Christian Frischkorn** (*FU Berlin*),
Terahertz spectroscopy of PEDOT:PSS as a conducting polymer for photovoltaic devices
- 10:00 – 15:30 Outdoor Workshop
- Afternoon Session (Chair: P. Kirchmann)
- 16:00 – 16:30 **Andreas Damm** (*U Marburg*),
Angle-Resolved Lifetimes of Image-Potential Electrons on Ag(111) and Cu(111)
- 16:30 – 17:00 **Nico Armbrust** (*U Marburg*),
Decoupling of image-potential states on Cu(100) by Ne adlayers
- 17:00 – 17:30 Coffee Break
- 17:30 – 18:00 **Christian Eickhoff** (*MBI Berlin*),
Dynamics of image-potential states on Si(100)
- 18:00 – 18:30 **Matthias Schult** (*U Marburg*),
Dynamics of Image-Potential Resonances
- 18:30 – 19:00 **Elisabeth Siebert** (*MBI Berlin*),
An outlook on spin- and time-resolved 2PPE measurements of image-potential states on Ni and Gd
- 19:30 – 20:30 Dinner
- 20:30 – More discussions ...

Thursday, February 26

- 07:00 – 08:00 Breakfast
- Morning Session (Chair: M. Weinelt)
- 08:15 – 09:00 **Jörg Schäfer** (*U Würzburg*),
Electronic Interactions at Surfaces and in Atomic Nanostructures
- 09:00 – 09:15 Discussion
- 09:15 – 09:45 **Michael Bauer** (*U Kiel*),
Subwavelength control of nanooptical fields
- 10:00 – 15:30 Outdoor Workshop
- Afternoon Session (Chair: U. Bovensiepen)
- 16:00 – 16:30 **Patrick Kirchmann** (*FU Berlin*),
Transient electronic structure and ultrafast melting of a charge density wave in TbTe₃
- 16:30 – 17:00 **Muhammad Sultan** (*FU Berlin*),
Laser induced ultrafast magnetization dynamics in Gadolinium
- 17:00 – 17:30 Coffee Break
- 17:30 – 18:00 **Ulrich Höfer** (*U Marburg*),
Laser-induced diffusion of H/Si(001)
- 18:00 – 18:30 **Gerson Mette** (*U Marburg*),
Site-Selective Adsorption of ethylene on Si(001) induced by hydrogen precoverage
- 18:30 – 19:00 **Juraj Bdzoch** (*FU Berlin*),
Electron solvation in D₂O/Ru(0001) - a water molecule's point of view
- 19:30 – 20:30 Dinner
- 20:30 – More discussions ...

Friday, February 27

- 08:00 – 09:00 Breakfast
- 09:00 – 10:30 Departure and return of skiing equipment

Program of the "Winter School on Ultrafast Processes in Condensed Matter", Feb. 22 – 27, 2009, Winklmoosalm

Time	Sunday Feb. 22	Monday Feb. 23	Tuesday Feb. 24	Wednesday Feb. 25	Thursday Feb. 26	Friday Feb. 27
07.00		breakfast	breakfast	breakfast	breakfast	breakfast
08.00		Chair: U. Höfer	Chair: M. Bauer	Chair: M. Wolf	Chair: M. Weinelt	
08.15	L. Rettig	G. Bihlmayer	R. Huber	J. Schäfer		
08.30						
08.45	K. Biedermann					
09.00		Discussion	Discussion	Discussion		
09.15	K. v. Volkmann	A. Melnikov	C. Frischkorn	M. Bauer		
09.30						
09.45						
10.00						
	arrival	outdoor workshop	outdoor workshop	outdoor workshop	outdoor workshop	departure
	rent equipment					return equipment
16.00		Chair: C. Frischkorn	Chair: J. Gúdde	Chair: P. Kirchmann	Chair: U. Bovensiepen	
16.30		U. Bovensiepen	M. Wolf	A. Damm	P. Kirchmann	
17.00		K. Döbrich	M. Marks	N. Armbrust	M. Sultan	
17.30		coffee	coffee	coffee	coffee	
18.00	J. Gúdde	M. Weinelt	M. Weinelt	C. Eickhoff	U. Höfer	
18.30	T. Rohwer	K. Klabß	K. Klabß	M. Schult	G. Mette	
19.00		dinner	dinner	E. Siebert	J. Bdzych	
19.30				dinner	dinner	
20.00	misc. discussions	more discussions	more discussions	more discussions	more discussions	
20.30						

Participants of the "Winter School on Ultrafast Processes in Condensed Matter", Feb. 22 – 27, 2009, Winklmoosalm, Reit im Winkl

Gustav Bihlmayer	FZ Jülich	Rashba-type spin-orbit splitting in surface- and quantum-well states
Rupert Huber	U Konstanz	Femtosecond physics of semiconductors in ultra-intense THz fields
Jörg Schäfer	U Würzburg	Electronic Interactions at Surfaces and in Atomic Nanostructures
Juraj Bdzoch	FU Berlin	Electron solvation in D ₂ O/Ru(0001) - a water molecule's point of view
Uwe Bovensiepen	FU Berlin	Magnon-Enhanced Phonon Damping at Gd(0001) and Tb(0001) Surfaces
Christian Frischkorn	FU Berlin	Terahertz spectroscopy of PEDOT:PSS as a conducting polymer for photovoltaic devices
Patrick Kirchmann	FU Berlin	Transient electronic structure and ultrafast melting of a charge density wave in TbTe ₃
Alexey Melnikov	FU Berlin	Femtosecond spin dynamics induced by ballistic transport of spin polarized carriers in Au/Fe/MgO(001)
Laurenz Rettig	FU Berlin	Ultrafast electron dynamics in Pb/Si(111) quantum wells
Muhammad Sultan	FU Berlin	Laser induced ultrafast magnetization dynamics in Gadolinium
Konrad von Volkmann	FU Berlin	Temperature-dependent measurements of the carrier and phonon dynamics in HOPG and a comparison with naturally grown graphite
Martin Wolf	FU Berlin	Photostimulated molecular switching at metal surfaces: TBA/Au(111)
Kristian Döbrich	MBI Berlin	Spin-resolved two-photon photoemission: Exchange scattering and hot electron lifetimes in 3d-ferromagnets
Christian Eickhoff	MBI Berlin	Dynamics of image-potential states on Si(100)
Elisabeth Siebert	MBI Berlin	An outlook on spin- and time-resolved 2PPE measurements of image-potential states on Ni and Gd
Martin Weinelt	MBI Berlin	Scissoring charge transfer by resonant photoemission: the photoswitch tetra-tert-butyl-azobenzene on Au(111)
Kerstin Biedermann	U Erlangen-Nürnberg	Decay of electronic states on Si(557)-Au studied by time-resolved two-photon photoemission
Timm Rohwer	U Kiel	Ultrafast Photoemission - towards joint measurements with high harmonics and the FEL
Michael Bauer	U Kiel	Subwavelength control of nanooptical fields
Nico Armbrust	U Marburg	Decoupling of image-potential states on Cu(100) by Ne adlayers
Andreas Damm	U Marburg	Angle-Resolved Lifetimes of Image-Potential Electrons on Ag(111) and Cu(111)
Jens Güdde	U Marburg	Time-resolved two-color interferometric photoemission
Kristina Klauß	U Marburg	SHG microscopy for femtochemistry studies of surfaces
Manuel Marks	U Marburg	Electron dynamics at the PTCDA/Ag(111) Interface
Gerson Mette	U Marburg	Site-Selective Adsorption of ethylene on Si(001) induced by hydrogen precoverage
Matthias Schult	U Marburg	Dynamics of Image-Potential Resonances
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