

## Program of RACIRI Summer School 2015, 22.-29.8.2015, Rügen Island

## Focus Theme: Time-resolved and In-situ Studies - Basics and Applications

Cliff Hotel Rügen, Cliff am Meer 1, 18586 Ostseebad Sellin (Navi: Siedlung am Wald 22a)

Time	Saturday 22.8.	Sunday 23.8.	Monday 24.8.	Tuesday 25.8.	Wednesday 26.8.	Thursday 27.8.	Friday 28.8.	Saturday 29.8.
07:00-08:30		BREAKFAST						
08:30-10:30		Welcome Addresses	Hartmut Zabel Basics of X-ray and neutron scattering - magnetic scattering	Anatoly Balagurov Real-time studies of materials and processes at pulsed neutron sources	Johan Gustafson High-energy X-ray diffraction for fast surface structure analysis	Andrew Higginbotham Shock-compressed matter under extreme conditions	Steven L. Johnson Femtosecond X-ray diffraction:dynamics of long-range order in materials	Check out & Departure
		Helmut Dosch Introductory Talk	Hubert Ebert Electronic structure of highly correlated materials	Christian Schroer X-ray microscopy and tomography - sharp views into the nano-cosmos	Martin Wolf Transient electronic structures in ultra-fast surface reactions	<b>Boris Sharkov</b> FAIR - creation of extreme states of matter as from Big Bang to the present	Giacomo C. Ghiringhelli RIXS for the study of strongly correlated electron systems	
10:30-11:00		Coffee & Tea						
11:00 12:00		Alexander loffe Nuclear-fission and spallation neutron sources	<b>Kai Rossnagel</b> Time-resolved ARPES of correlated electron materials	<b>Matthias Kling</b> Fast and small - attosecond phenomena on the nanoscale	<b>Anders Nilsson</b> Ultrafast X-ray probing reveals insight regarding the mystery of water	Tommy Nylander Biomolecular interactions at interfaces and lipid self-assembly structures	Joachim Stohr Soft X-ray interaction with matter: reso- nances, dichroism, and non-linear effects	
11.00-13.00		Hartmut Zabel Basics of X-ray and neutron scattering - elastic scattering	Henrik M. Ronnow Neutron studies of highly correlated materials	Ivan Vartaniants Coherent diffraction imaging and time- resolved studies of nano-materials	Tutorials with individual lecturers	<b>Olaf Holderer</b> Soft matter dynamics studied with neutron spin echo spectroscopy	<b>Raif Roehlsberger</b> Quantum and non-linear optics with hard X-rays	
13:00-14:30		LUNCH				LUNCH		
14:30-16:30	Arrival & Check-in (rooms available from 16:00)	Sverker Werin Synchrotron-radiation sources up to the latest developments	Albrecht Wiedenmann Stroboscopic SANS for probing nano- magnets	Marine Cotte Watching art and archaeology under synchrotron light		Anders Nilsson Chemical energy transformation at interfaces probed with X-rays	Henry N. Chapman Progress in X-ray protein nano- crystallography	
		Hartmut Zabel Basics of X-ray and neutron scattering - inelastic scattering	Joachim Stohr Magnetization dynamics studied with X-rays	Aleksei Zheltikov Ultrafast pump-probe spectroscopy and non-linear imaging		<b>Alfons Molenbroek</b> Study of materials for industrial catalysis	Petra Fromme Structure and dynamics of the photosystem II	
16:30-17:00		Coffee & Tea				Coffee & Tea		
17:00-19:00		Thomas Tschentscher Free-Electron Lasers - from FLASH to the European XFEL	Tutorials with individual lecturers	Serguei Molodtsov Complimentary use of synchrotron and Free-Electron-Laser radiation	Excursion to Jasmund National Park followed by Rügen-style Dinner	Science Slam 10-min. presentations, including discussion	Inna P. Kuranova Growth of protein crystals in micro-gravity and their study with X-rays	gravity
		Alexei E. Voloshin In-situ X-ray and optical studies of crystal- growth processes	Science Slam Selection of topics and speakers	Alexander E. Blagov X-ray acousto-optics - prospects of applications			Tutorials with individual lecturers	
19:00-20:30	Welcome Dinner	DINNER	Barbecue & Social Gathering	DINNER		DINNER	School Dinner & Awards	
20:30-22:00		Poster Session I 2-min. introductions (2 viewgraphs)		Poster Session II		Ada E. Yonath - Keynote lecture - Bestowal of Röntgen Medal 2014		