



**RACIRI 2018 Summer School**  
*From Basic Science and Applications to Technologies inspired by Nature*

25.08. - 01.09.2018, Rügen Island, Germany

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



Time	Saturday 25.08.	Sunday 26.08.	Monday 27.08.	Tuesday 28.08.	Wednesday 29.08.	Thursday 30.08.	Friday 31.08.	Saturday 01.09.
	Arrival	X-ray and Neutron Sources, Scattering	Experimental Techniques for Structure and Dynamics	Soft Matter & Bio-Materials	Energy & Environment - Materials, Processes, Devices	Quantum Matter, Applications, Nature-inspired Technologies & Complementary Methods		Departure
07:30-08:30	Breakfast							
08:30-09:30	9:15-9:40: <b>Opening Ceremony</b>	<i>Ferenc Mezei</i> High energy resolution neutron spectroscopy	<i>Vladimir Volkov</i> SAXS and SANS studies of disordered systems	<i>Valentine P. Ananikov</i> Catalysis by nanoparticles: outstanding technologies and unknown mechanisms	<i>Raif Vasilov</i> Biotechnology for improving the quality of life	<i>Lars Berglund</i> Biobased and bioinspired composites	Check out & Departure (before 12:00h)	
09:30-10:30	9:40-10:30: <b>Introductory Lecture</b> <i>Günter Kaindl</i>	<i>Svante Svensson</i> Advanced spectroscopy using synchrotron radiation	<i>Tommy Nylander</i> Lipid-layer structure and biomolecular interactions by neutron and x-ray scattering	<i>Franz Himpfel</i> Fostering clean energy by spectroscopy with synchrotron radiation	<i>Ivan Vartanians</i> Looking into the nano-world with coherent x-rays	<i>Ib Chorkendorff</i> Nature inspired solar fuel technology		
10:30-11:00	Coffee & Tea		Group Picture		Coffee & Tea			
11:00-12:00	<i>Andreas Schreyer</i> Neutron sources	Free time	<b>Keynote Lecture</b> <i>Rolf-Dieter Heuer</i> Lessons learned in science diplomacy		<i>Ralph Gilles</i> In-situ and operando studies of batteries with neutrons	<i>Joachim Stöhr</i> Magnetism: from a natural phenomenon to advanced technologies		
12:00-12:30	Free time		CREMLIN Session		Tutorials IV		Free time	
12:30-13:30	LUNCH				Pick-up of lunch bags		Lunch	
13:30-14:30	<i>Serguei Molodtsov</i> X-ray sources	<i>Linda Young</i> Dynamical imaging with XFELs	<i>Henry Chapman</i> Protein nanocrystallography		Excursion	<i>Zhi-Xun Shen</i> Quantum materials – insights from Einstein's electrons	<i>Sascha Schaefer</i> Ultrafast nanoscale dynamics probed by time-resolved electron microscopy	
14:30-15:30	<i>Frank Schreiber</i> X-ray and neutron scattering I	<i>Felix Roosen-Runge</i> Dynamics of soft matter using neutron spectroscopy	<i>Andrey Konevega</i> Macromolecular complexes studied by x-rays, neutrons and complementary methods			<i>Nils-Gunnar Vågstedt</i> What batteries are needed for realizing battery trucks?	<i>Marta Carroni</i> Cryo electron microscopy to determine the structure of biological complexes	
15:30-16:00	Coffee & Tea					Coffee & Tea		
16:00-17:00	<i>Frank Schreiber</i> X-ray and neutron scattering II	SCIENCE SLAM I Preparation	<i>Kirsi Lorentz</i> X-rays in human bioarchaeology			Tutorials V		<i>Winfried Petry</i> Neutrons for medicine
17:00-18:00	Tutorials I	Tutorials II	Tutorials III			SCIENCE SLAM II Presentations		Tutorials VI
18:00-19:00	Free time					Free time		
19:00-20:00	Dinner	Beach Barbecue & Social Gathering	Dinner			Dinner		Closing Dinner & Awarding Ceremony
20:00-22:00	Welcome Dinner		Poster Session I	Poster Session II		Cultural Evening directed by the students		