

## Summerschool on Condensed Matter Research, Zug, 11. August 2012 – 17. August 2012

### Imaging Life and Matter – using photons, neutrons and muons

#### Tentative Programme

	Sunday 12 Aug 2012	Monday 13 Aug 2012	Tuesday 14 Aug 2012	Wednesday 15 Aug 2012	Thursday 16 Aug 2012	Friday 17 Aug 2012
09:00 – 10:15	Introduction to imaging – history <b>Jose Baruchel, ESRF</b>	Phase contrast X-ray imaging methods <b>Manuel Guizar-Sicairos, PSI</b>	Coherent Diffraction-based Imaging Methods <b>Ian Robinson, UCL</b>	Excursion	Comparing SANS and microscopy of magnetic domains <b>J. Kohlbrecher, PSI</b>	Measuring and interpreting distributions and correlations at the XFEL <b>B. Pedrini, PSI</b>
10:15 – 10:45	COFFEE	COFFEE	COFFEE		COFFEE	COFFEE
10:45 – 12:00	X-ray tomographic microscopy: from 2D to 3D <b>M Stampanoni, ETH/PSI</b>	Neutron dark field imaging of magnetic domain walls <b>C. Grünzweig, PSI</b>	Imaging multiferroic domains with X-ray magnetic scattering <b>H. Walker, DESY</b>		Introduction to reflectometry, thin films and hetero structures <b>J. Stahn, PSI</b>	Molecular movies (using X-ray-FEL) <b>Rafael Abela, PSI</b>
12:15 – 16:00	Lunch and Free Afternoon	Lunch and Free Afternoon	Lunch and Free Afternoon		Lunch and Free Afternoon	Closing remarks Lunch Departure
16:00 – 16:30	COFFEE	COFFEE	COFFEE	COFFEE	COFFEE	
16:30 – 17:45	Imaging water in Fuel cells - starting with short introduction to neutron imaging <b>P. Boillat, PSI</b>	Catching the moment – magnetization dynamics studied with X-ray microscopy <b>F. Nolting, PSI</b> Time resolved imaging - flying insects and foam <b>R Mokso, PSI</b> Neutron imaging in the time/energy domain <b>E. Lehmann, PSI</b>	Neutron and X-Ray diffraction for metals research <b>Julia Repper, PSI</b>	Full field microscopy of cells <b>Gerd Schneider, HZB</b>	Low energy muons: magnetic field imaging on a nanometer scale <b>T. Prokscha, PSI</b>	
17:45 – 19:00	Image processing - introduction <b>A. Kaestner, PSI</b>		<b>POSTERSESSION</b>	Imaging living tissue using X-ray micro-computed tomography <b>Ralph Müller, ETHZ</b>	Imaging 3D structure of cells and biological molecules using electron microscopy/tomography <b>Takashi Ishikawa, PSI</b>	
19:15 – 20:30	DINNER	DINNER	DINNER	DINNER	Apéro	
20:30 – 21:30	Studies of Older Master paints using neutrons and synchrotron light <b>Jaap Boon, Amsterdam</b>	<b>FREE EVENING</b>	Ancient life revealed through X-ray tomographic microscopy <b>Stefan Bengtson Stockholm</b>	Muon imaging of pyramids <b>Arturo Menchaca, UNAM</b>	BANQUET	