Programme Schedule

Monday 20th September 2010

- 15:00 BST Registration / Welcome Reception
- 15:30 Welcome: Professor Pam Thomas (XTOP 2010 Chair)
- 15:45 16:45 Plenary Tutorial I Chair: Professor Pam Thomas Dr Jean Susini (ESRF, France): High-resolution synchrotron-based X-ray imaging: trends and opportunities
- 16:45 17:45 Plenary Tutorial II Chair: Professor Pam Thomas Professor Brian Tanner (Durham University, UK): High Resolution X-ray Diffraction and Reflectometry: the same physics - different length scales
- 18:00 19:15 Two Minute Poster Presentations I Chair: Dr David Walker
- 19:30 Dinner (Rootes Restaurant)
- 20:30 Poster Session I & Mixer (Science Concourse)

Tuesday 21st September 2010

- 09:00 10:45 Session I Coherent Diffraction & Imaging Chair: Professor José Baruchel
 - **09:00** Dr Anatoly Snigirev (ESRF, France): *In-line X-ray interferometers based on planar refractive lenses*
 - **09:30** Dr Alexander Kazimirov (CHESS, Cornell University, USA): New diffraction imaging technique based on focused X-ray beams
 - **09:45** Mr Micheal Schöbel (Technical University Vienna, Austria): *Internal stresses and voids in SiC-particle reinforced Aluminum for heat sink applications*
 - **10:00** Dr Wen Hu (Kansai Photon Science Institute, Japanese Atomic Energy Agency): Direct observation of higher order atomistic structure in $Ti_{50}Ni_{44}Fe_6$ at lower temperature phase
 - **10:15** Dr Martin Dierolf (Technical University Munich, Germany): *Ptychographic coherent diffractive imaging in two and three dimensions*
- 10:45 Coffee Break
- 11:15 12:30 Session II Industrial Applications

Chair: Dr Paul Fewster

- **11:15** Dr Edward Mitchell (ESRF, France): Industrial applications at the European Synchrotron radiation facility: from catalysts to ice cream
- **11:45** Dr Paul Ryan (Jordan Valley Semiconductors, UK): Production metrology of advanced LED structures using high-resolution X-ray diffraction
- **12:00** Professor Mike Dudley (Stony Brook University, USA): *Industrial applications of synchrotron X-ray topography*
- 12:45 Buffet Lunch (Science Concourse)
- 13:45 15:45 Two Minute Poster Presentations II. Chair: Dr Tom Hase

Programme Schedule

Tuesday 21st September Continued...

- 15:45 Tea Break
- 16:15 18:00 Session III Nanomaterials Chair: Professor Julian Stangl
 - **16:15** Dr Virginie Chamard (CNRS, France): *Three-dimensional X-ray fourier transform holography: the Bragg case*
 - **16:45** Mr Andreas Biermanns (University of Siegen, Germany): X-ray characterization of Au-free grown GaAs nanowires on Si
 - **17:00** Dr Oleksandr Yefanov (DESY, Germany): Orientation determination in single particle X-ray coherent imaging
 - **17:15** Mr Eugune Wintersberger (Johannes Kepler University, Linz, Austria): *Fast methods for 3D simulations of X-ray diffraction data from nano-structures*
 - **17:30** Dr Heikki Suhonen (ESRF, France): *Hard X-ray phase contrast tomography of nano-scale materials*
- 18:30 Dinner (Rootes Restaurant)
- 20:00 Poster Session II (Science Concourse)

Wednesday 22nd September 2010

- 09:00 10:30 Session IV Advances in Laboratory-based Diffraction & Imaging Chair: *Professor Vaclav Holý*
 - **09:00** Dr Martin Bech (Technical University Munich, Germany): *Developments in grating based X-ray dark-field and phase-contrast imaging using laboratory sources*
 - **09:30** Mr Karol Vegso (Institute of Physics, SAS, Bratislava, Slovakia): *Phase transitions in Ag nanoparticle langmuir film studied with novel table-top GISAXS setup*
 - **09:45** Miss Jennifer Stopford (Dublin City University, Ireland): *Three dimensional X-ray diffraction imaging of damage to silicon wafers*
 - **10:00** Dr Peter Zaumseil (IHP, Frankfurt, Germany): Laboratory-based characterization of Ge epitaxially grown on nano-structured Si (001) wafers
- 10:30 Coffee Break
- 11:00 12:35 Session V Non-Ambient Studies
 - Chair: Professor Keith Bowen
 - **11:00** Dr Andreas Danilewsky (Freiburg University, Germany): *In-situ high temperature X-ray diffraction imaging of dislocation dynamics in silicon*
 - 0 11:30 Dr Tobias Schülli (ESRF, France): Substrate-enhanced supercooling in AuSi droplets
 - **12:00** Mr Tomy dos santos Rolo (ANKA-ISS, KIT, Germany): *High speed microtomography at ANKA: implementation and first applications*
 - 12:15 Professor Pam Thomas & Dr David Walker (University of Warwick, UK): Optical & X-ray topography study of self-organised domains in BaTiO₃
- 13:00 Buffet Lunch & XTOP Committee Meeting

Programme Schedule

Wednesday 22nd September Continued...

- 14:30 16:00 Session VI Surface & Interface Studies
 - Chair: Professor Ullrich Pietsch
 - **14:30** Dr Frédéric Livet (Simap-Phelma, Grenoble, France): *Experimental study of surfaces by coherent X-ray diffraction*
 - **15:00** Dr Souren Grigorian (University of Siegen, Germany): *Correlation between structure, morphology and device performance of conjugated poly(thiophene) films*
 - **15:15** Dr Oier Bikondoa (ESRF, France): *Slow dynamics of ion induced nanopattern formation on GaSb(001)*
 - **15:30** Dr Alessia Cedola (IFN-CNR, Rome, Italy): *X-ray micro-diffraction imaging: a new tool to study biomaterials for tissue engineering*
- 16:00 Tea Break
- 16:30 17:30 Plenary III Chair: TBC
 Professor Morton Moore (Royal Holloway, UK): Imaging diamond with X-rays
- 17:30 XTOP 2010 Delegate Photo (Venue TBC)
- 19:00 Conference Dinner (Panorama Suite)

Thursday 23rd September 2010

- 9:30 11:00 Session VII Diffraction, Spectroscopy & Resonant Scattering Chair: *Professor Steve Collins*
 - **09:30** Dr Vladimir Dmitrienko (A.V. Shubnikov Institute of Crystallography, Moscow, Russia): *Combining near-edge absorption and resonant diffraction for crystal studies*
 - **10:00** Mr Lucas Horák (Charles University, Prague, Czech Republic): Study of Mn interstitials in GaMnAs using high-resolution X-ray diffraction
 - **10:15** Professor Sergio L Morelhão (University of Sao Paulo, Brazil): Accurate X-ray phase measurements with genetic algorithm: applications in doped NLO crystals
 - **10:30** Professor Mark Dowsett (University of Warwick, UK): Synchrotron Techniques for the Conservation of Heritage Metals
- 11:00 Coffee Break

• 11:30 – 12:45 Session VIII Coherent Diffraction & Imaging II

- Chair: Professor Franz Pfeiffer
 - **11:30** Dr André Beerlink (University of Göttingen, Germany): *Hard X-Ray phase contrast Imaging of Black Lipid Membranes*
 - **12:00** Dr Ralf Hofmann (Karlsruhe Institute for Technology, Germany): Foundations of perturbative phase retrieval for single-distance radiogram
 - **12:15** Dr Tamzin Lafford (ESRF, France): Investigation by coherent X-ray section topography of ferroelectric domain behaviour as a function of temperature in periodically poled Rb:KTP crystals
 - **12:30** Ms Venera Altapova (Karlsruhe Institute for Technology, Germany): *Phase-contrast imaging with a grating interferometer at ANKA*
- 12:45 Closing Remarks: Professor Pam Thomas (XTOP 2010 Chair)
- 13:00 Close + Optional Lunch