BLIS Workshop Programme

All talks will be in the Physics Auditorium - Building 523 3rd Floor
Lunch will be held in the Physics Canteen on the 7th Floor

Wednesday, 3 October: Experiments and Registration

09:00 Attendee experimental time
Contact John Kenney (CD) or Joanna Abraham-Peskir (XM)

16:00 - 18:00 Reception and pre-registration 3rd Floor outside Physics Auditorium

Thursday, 4 October: Spectroscopy

08:30 Registration 3rd Floor outside Physics Auditorium

Session 1: Circular Dichroism (CD) Spectroscopy

Chair: Sydney Leach

09:00 *Opening remarks*: Søren Pape Møller, ISA, DK

09:15 *Photoelastic modulator based fluoro-dichro-spectrophotomers: Versatile instruments for biophysical spectroscopy using synchrotron radiation*
John Sutherland, BNL, USA

10:00 *Recent developments and results at the Daresbury SRS*
David Clarke, Daresbury Laboratory, UK

10:30 Coffee

11:00 *Synchrotron radiation circular dichroism spectroscopy of proteins: secondary structure, fold recognition, and structural genomics*
Robert W. Janes, University of London, UK

11:40 *Conformation transition of Bombyx mori silk fibroin*
Shao Zhengzhong, University of Fudan, PR China

12:15 *ASTRID milestones- our first year* John M. Kenney, ISA, DK

12:30 Lunch

Session 2: Fourier Transform Infrared (FT IR) & Fluorescence Spectroscopy

Chair Ian Munro

14:00 *Applications of synchrotron infrared microscopy in biology and medicine*
Paul Dumas, LURE, France

14:45 *Confocal microscopy and fluorescence spectroscopy using synchrotron radiation at the Daresbury SRS*
Mark Tobin, Daresbury Laboratory, UK

15:30 Coffee

Session 3: Brief Talks by Attendees on Related Topics

16:00 *Some examples of absorption and circular dichroism spectroscopy in the far UV at ASTRID* Peter W. Thulstrup, Royal Veterinary and Agricultural University, Denmark

16:20 *Modeling microtubule oscillations studied with synchrotron radiation*
Henrik Flyvbjerg, Risø national Laboratory, Denmark

16:40 *New facilities for biological research at BESSY II*
Markus Sauerborn, BESSY, Germany

17:00 *The soft X-ray microscopy project at Saga synchrotron light source*
Masato Yasumoto, Fukuoka, Japan

17:20 *Combining and representing data techniques*
Chris Buckley, Research Systems International, UK

17:40 End of Sessions

Friday, 5 October: Imaging

Session 4: X-ray Microscopy (XM)

Chair: Erik Uggerhøj

09:00 *X-ray spectromicroscopy, tomography, and diffraction imaging*
Chris Jacobsen, BNL, USA

09:45 *Latest results using the Aarhus X-ray microscope*
Joanna Abraham-Peskir, ISA, Denmark

10:00 *Membrane changes in human spermatozoa visualised by X-ray microscopy*
Eric Chantler, Manchester University, UK

10:30 Coffee

11:00 *New trends of multi-keV X-ray microscopy in biology*
Jean Susini, ESRF, France

11:30 *X-ray microscopy of soil microorganisms*
Jürgen Thieme, University of Göttingen, Germany

12:00 *Chemical state mapping of wood composites*
Christopher Buckley, London, UK

12:30 Lunch

Session 5: Medical Imaging

Chair: Michel Dalstra

14:00 *Absorption- and phase-contrast microtomography using synchrotron radiation*
Felix Beckmann, HASYLAB at DESY, Germany

14:45 *Microtomography of cortical bone using synchrotron radiation*
Michel Dalstra, University of Aarhus, Denmark

15:30 Coffee

16:00 *3D-analysis of bone-implant interfaces by synchrotron-radiation-based microtomography,*
Bert Mueller, Zurich, Switzerland

16:30 *Gadolinium in glioblastoma cells and tissue for GdNCT*
Gelsomina De Stasio, University of Wisconsin, USA

17:00 End of sessions

19:00 Conference Dinner

Saturday, 6 Oct: Molecular Physics

Session 6: Gas-phase Biomolecule Spectroscopy (GBS)

09:00 *Gas phase investigation: Discovery of new models and effects which might be useful for solution*
Rainer Weinkauf, Dusseldorf, Germany

09:30 *Properties, structures, reactions, and desolvation dynamics of biological molecules in the gas phase*
Jack Beauchamp, CalTech, USA

10:00 *Photophysics experiments on biomolecules in ELISA*
Steen Broendsted Nielsen, Princeton University, USA

10:30 Coffee

Session 7: Brief Talks by Attendees on Related Topics

11:00 *Radiation damage studies using SR*
Ian Munro, UMIST, Manchester & SRS, UK

11:20 *Using synchrotron-based X-ray microtomography in Environmental Science*
Dorthe Wildenschild, Environment & Resources Technical University of Denmark

11:40 *Chiral recognition observed at the molecular level by scanning tunnelling microscopy*
Trolle Linderoth, University of Aarhus, Denmark

12:00 Discussion and closing remarks

14:00 Attendee experimental time