NIS colloquium

X-ray induced modifications in materials: applications and challenges

6-7 April 2017
Università di Torino, Via P. Giuria 1

April 6th, Aula A

Chair: **Sergei Simak**, *Linköping University*

14.00-14.10
Ermanno Vercellin
Deputy Director for Research of the Physics Department of the University of Torino
Welcome address

14.10-14.20
Gabriele Ricchiardi
Director of Inter-departmental Centre for Nanostructured Interfaces and Surfaces - NIS - of the University of Torino
Welcome address

14.20-14.50
Roelof Van Silfhout
BM26-DUBBLE, European Synchrotron Radiation Facility, Grenoble
X-ray beam induced phase transitions at DUBBLE - observations at a bending magnet beamline

14.50-15.20
Nikita Medvedev
Institute of Physics of the Czech Academy of Sciences, Prague
Thermal and non-thermal transitions in X-ray-irradiated solids

15.20-15.50
Gema Marinez-Criado
Materials Science Institute, CSIC, Madrid
High resolution X-ray spectro-microscopy techniques applied to nanoscience

15.50-16.20
Krywka Christina
Helmholtz-Zentrum Geesthacht @ Desy, Hamburg
P03 Nanofocus Endstation - Nanodiffraction for Materials Science

16.20-16.40: **Coffe Break**

Chair**: Angelo Agostino**, *University of Torino*

16.40-17.10
Petre Badica
National Institute of Materials Physics, Magurele
Materials research at National Institute of Materials Physics

17.10-17.40
Christoph Bäumer
Peter Grünberg Institute, Research Centre Jülich.
Redox-based switching mechanisms in memristive devices studied by synchrotron-based spectromicroscopy

17.40-18.10
Sergei Simak
Linköping University
Oxygen vacancy diffusion from ab initio non-equilibrium molecular dynamics

19.30: **Social Dinner**

April 7th, Sala Wataghin

Chair**: Gema Martinez-Criado,** *CSIC, Madrid*

9.00-9.30
Andreas Johannes
ID13, European Synchrotron Radiation Facility, Grenoble
Synchrotron based nano-focused X-ray investigations

9.30-10.00
Lorenzo Mino
University of Torino
Direct-write X-ray nanopatterning for oxides

10.00-10.30
Ulf Lundström
Excillum, Stockholm

MetalJet X-ray sources for high intensity X-ray beams

10.30-11.00
Lutz Bruegemann
Bruker
Utilisation of the MetalJet X-ray source for diffraction experiments

11.00-11.20: **Coffe Break**

11.20-11.35
Carmen Fiore
EU Project Office, University of Torino
The FET-Open scheme of H2020

11.35-11.50
Marco Truccato
University of Torino
Possible structure of a FET-Open proposal in the field of X-ray induced modifications in materials

11.50-13.00
Round Table and Discussion

13.00-14.30: **Lunch**

14.30-16.00: **Final discussion and Closing Remarks**

Organizers:
Angelo Agostino
Lorenzo Mino
Marco Truccato

Registration is free but requested
Please send an e-mail to: lorenzo.mino@unito.it by 31/03/2017