X-ray & Neutron Scattering in Multiferroic and Ferroelectric Materials Research Workshop III

Programme:

Multiferroics are fascinating materials where multiple orders out of ferroelectricity, ferroelasticity, and magnetism coexist and couple with potential applications for new multifunctional devices including novel sensors, filters and spinvalves, biosensors and (multistate) memory storage.

X-ray and neutron scattering techniques enable the characterisation of structural and magnetic behaviour, as well as the investigation of complex couplings between the different order parameters that exists in these materials as well as in composite structures.

This one-day workshop will bring together experts from the multifunctional materials communities with neutron and synchrotron facility users to present the latest developments in the field. Live connections from various labs around Europe will be established and experimental demonstrations will be streamed. A discussion forum will be held during the afternoon to examine the experimental uncertainties, issues and practicalities in performing complex measurements to investigate the static and dynamic properties of multifunctional materials, in applying in situ electric, magnetic and stress fields in x-ray and neutron experiments, as well as wider issues in materials processing, crystal growth and sample preparation.

This event is being co-hosted by the XMaS beamline at ESRF, which comprises a unique combination of instrumentation for high resolution and magnetic single crystal diffraction and the Functional Materials Group at the UK's National Physical Laboratory (NPL), whose expertise lies in the development of metrology in multiferroics, piezoelectrics and ferroelectrics. The event is co-sponsored by the XMaS beamline, Oxford University, UK's Institute of Physics (IOP Dielectrics Group) and the Institute of Materials, Minerals and Mining (IOM3 Smart Materials and Systems Committee).

Posters:

Workshop delegates are invited to present their recent work on multiferroic & multifunctional materials during a lunchtime poster session. The posters should be A0 size and priority will be given to those containing x-ray or neutron scattering results.

Please e-mail a one page abstract (max 300 words) to carlo.vecchini@npl.co.uk by 30th September 2013. The list of accepted posters will be communicated by 20th October 2013.

Date:

9.30 am to 4.30 pm 14th November 2013

Venue:

National Physical Laboratory
Hampton Road, Teddington, Middlesex
TW11 0LW, United Kingdom

Cost:

This event is free to attend

Registration:

To secure your place at this workshop, please complete the online registration form at:
www.npl.co.uk/multiferroicworkshop3

Contact:

For further information on the workshop, please contact Carlo Vecchini at **carlo.vecchini@npl.co.uk** or Markys Cain at **markys.cain@npl.co.uk**

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