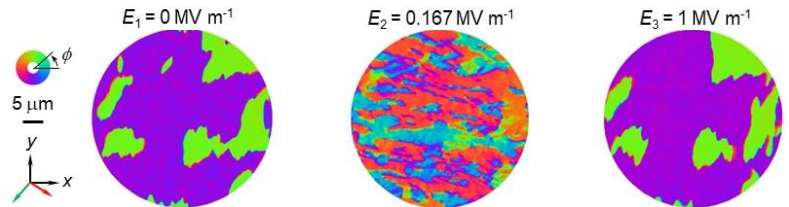


A Research Associate (RA) position is available in the Magnetic Materials group of the Physics Department of the University of Parma. The RA will be involved in the experimental study of composite multiferroics, made of continuous or patterned magnets on ferroelectric substrates. Magnetoelectric effects will result in the overlying magnet when a voltage drives ferroelectric domain switching and/or structural phase transitions in the underlying substrate. Current magnetoelectric systems under study comprise (1) exfoliated 2D magnets (collaboration with Diamond Light Source and Center for Materials Physics, Cambridge) and (2) magnetic multilayers containing skyrmions (collaboration with Diamond Light Source, Center for Materials Physics, Cambridge and CNRS-Thales, Paris). The RA will be involved in high-resolution imaging experiments (e.g. using PhotoEmission Electron Microscopy with X-ray synchrotron radiation and Scanning Force Microscopy) and X-ray diffraction studies, both in varying temperature and applied electric fields (collaboration with the Chemistry Dept., Unipr).

The candidate will work in the framework of a well-established collaboration between the University of Parma, the University of Cambridge and Diamond Light Source. Candidates at the Master level and/or interested in modeling are also welcome to apply.



The magnetic domains of a thin Ni film grown on a ferroelectric substrate can be electrically controlled as shown in these vector maps obtained at Diamond Light Source, using PhotoEmission Electron Microscopy with contrast from X-ray Magnetic Circular Dichroism (XMCD-PEEM). M. Ghidini et al. *Nature Mater.*, **18** 840 (2019)

Moreover, we might soon have other openings, so please do get in touch if interested.

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