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NANOSCIENCE COLLOQUIUM

Friday December 12th 2014 at 09:30, K-space, Fysicum

Determining the atomic structure of nanostructured materials using focused electron beams: *Applications to nanowires, nanoparticles and nano-chessboard structures*

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The important properties of nanostructured materials often depend on small numbers of atoms located at critical positions within the structure. This talk will give an overview of methods for solving the atomic structure of nanostructured materials using electron beams that can be brought to a focal point smaller than an atom. It will illustrate these with applications to a range of nanostructured materials, including the measurement of the local polarity, dopant concentration and atomic-scale morphology in semiconducting nanowires; the atomic structure, geometry and stability of metallic nanoparticle facets; and the local octahedral tilt structure of “chessboard” nanostructures in lithium-based titanate perovskites.



Host: Crispin Hetherington (Centre for Analysis and Synthesis)

This is one in a regular series of Nanoscience Colloquia, aimed at all researchers and students with an interest in nanoscience. The series is arranged by the Strategic Research Environment “The Nanometer Structure Consortium at Lund University” (nmC@LU) and by the Linnaeus environment “Nanoscience and Quantum Engineering”, funded by the Swedish Research Council (VR).



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