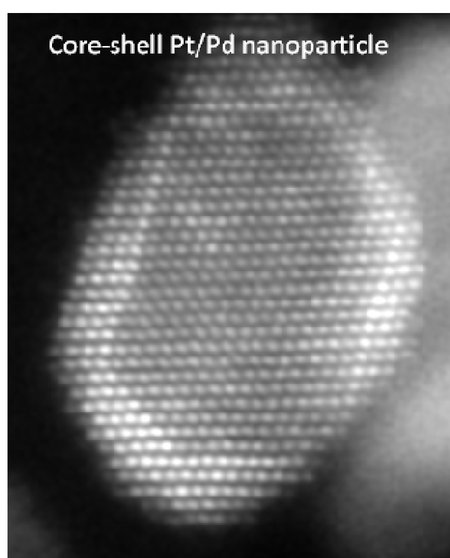
SPOLEČNÝ SEMINÁŘ
Ústavu fyziky materiálů a Ústavu přístrojové techniky AV ČR

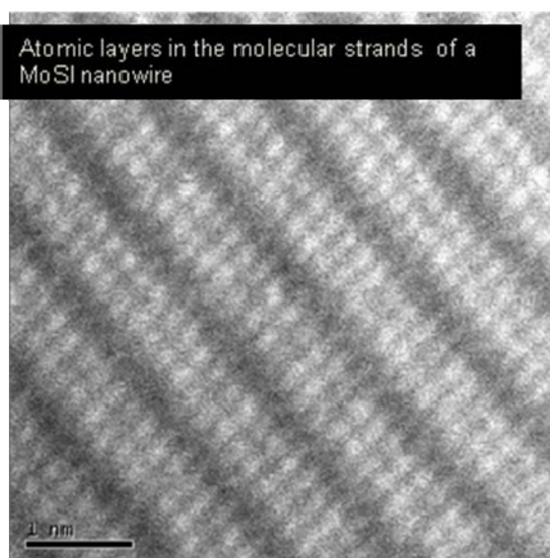
dne **12.4.2011** (úterý) v **10:00 h**
v přednáškovém sále (4. patro)
Ústavu fyziky materiálů AV ČR, Žižkova 22, Brno

Peter D. Nellist
University of Oxford, Department of Materials

Applications of aberration-corrected scanning transmission electron microscopy to atomic resolution and 3D imaging

The recent development of correction technology for the inherent spherical aberration of electron lenses has led to a dramatic improvement in the performance of electron microscopes. In this talk I will describe the principle of correction in the scanning transmission electron microscope (STEM), and demonstrate the improvement in performance. In particular I will focus on how aberration-corrected STEM can be used for quantitative imaging of nanostructures. I will also describe recent research in which the restricted depth of field in aberration-corrected STEM is used in a confocal configuration to allow three-dimensional imaging and analysis of materials.





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