



UNIVERSITY OF TRENTO - Italy
Department of Materials Engineering
and Industrial Technologies

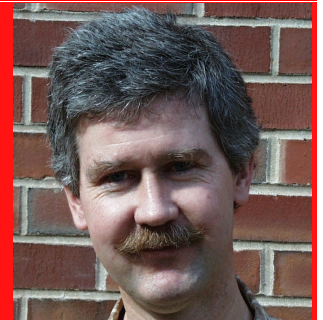
International School of Doctoral Studies in Materials Science & Engineering Inauguration of the Academic Year 2010-2011

April 28th, 2011 - 4.00 p.m. - Conference Room R2

Synchrotron as Microscope

imaging using coherence

Prof. Ian Robinson, London Centre for Nanotechnology



"Synchrotron as Microscope: imaging using coherence"

The exploitation of synchrotron radiation is one of the marvels of the technological world. Once considered to be an annoying waste of energy in high energy physics, the latest machines have learned to channel the power into beams of X-rays.

The coherence of the beams is sufficient that interference effects can be readily seen and exploited to make X-ray images which can be used to understand materials. I will illustrate this with my recent studies of nanocrystals. In the future, the development of X-ray free-electron lasers will push these limits even further.

