Coherent X-rays - fundamentals and applications

Pierre Thibault¹,

¹School of Physics & Astronomy, University of Southampton, UK, pierre.thibault@soton.ac.uk

Increases in X-ray source brilliance offer new opportunities for experiments that rely on X-ray coherence. This introductory talk will briefly describe fundamental concepts necessary to describe and measure the coherence properties of X-rays. An overview of the techniques that make use of coherent X-rays will then be presented.