European XFEL

European XFEL Science Seminar

Tuesday, 11th April 2017, 17:00 (Tea/Coffee at 16:45)
Campus Schenefeld, main building (XHQ) room E1.173

Anatoly Snigirev

Immanuel Kant Baltic Federal University, Kaliningrad, Russia

Recent advances in the development of X-ray refractive optics for coherence-related applications

In the past two decades, there has been a rapid development in our ability to control, manipulate and focus x rays by refractive optics. The emergence of x-ray free electron lasers and diffraction-limited synchrotron radiation sources has increased demands on coherence compatible optics, where refractive lenses as in-line optics have obvious advantages. In addition, the past few years have been witness to significant advances in the development of new coherence-related techniques based on refractive optics: x-ray microscopy, diffraction imaging and interferometry. For utilizing these new techniques, scientists in the field are taking the first steps toward the development of advanced optical concepts for new beamlines. Details of these developments will be presented.

Host: Anders Madsen