Lecture: X-ray optics for Synchrotron Radiation Beamlines

Speaker: Ray Barrett, ESRF (barrett@esrf.eu)

Duration: 45'

Abstract: Optical elements in a typical SR beamline can be required to modify characteristics of the X-ray beam such as its shape and divergence, spectral distribution and intensity, and polarisation. The two extreme cases of high heat-load optical components and high spatial-resolution focusing devices illustrate well the range of demands placed upon X-ray optics in modern light sources. This presentation will give a broad introduction to the requirements and operating principles of these, and other, X-ray optical systems and, through a range of examples, show the highly diverse classes of devices which are implemented at X-ray light sources in order to tailor the X-ray beam characteristics to the experimental requirements