

Plenary talks (PV)

Plenary Talk (SAMOP) PV XXIV Fri 9:15 HSZ 02
Coherent x-ray imaging for biomedical applications — ●FRANZ
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Visible-light microscopy is a standard and widely used tool with a broad range of applications in science, industry and everyday life. Besides standard bright-field imaging, many more contrast mechanisms have been developed, and dark-field-imaging, phase-contrast, confocal

and fluorescence microscopy are routine methods in today's light-microscopy applications. In x-ray microscopy, or more generally x-ray imaging, the development of a similar range of contrast modalities proceeded much more slowly and is still a very active field of research. This presentation will focus on our recent contributions to this field and discuss the development of several novel coherent x-ray imaging and microscopy methods and their application to biology and medicine on length scales ranging from the macromolecular to the macroscopic level.