

## **New challenges for X-ray ptychography**

*Björn Enders*  
TU München, Germany

Ptychography is an imaging technique that produces quantitative maps of a complex-valued transmission function through the combination of multiple coherent diffraction measurements from the illumination of several overlapping regions on the specimen. Thanks to the information gain provided by the diversity of the measurements, reconstructions from ptychographic data are especially robust in comparison to other X-ray coherent diffractive imaging techniques (CDI). The technique has been extended to three-dimensional imaging and is now used routinely with a few dedicated instruments. This talk will give an overview of recent developments in the fields, from biomedical applications to extensions of the method for partial coherence, dynamical studies, and full-field imaging.