Contribution ID: **14** Type: **not specified**

Ptychographic X-ray Speckle Tracking

Thursday 28 January 2021 14:10 (30 minutes)

Recent developments in layer deposition techniques have enabled the fabrication of a series of highly focusing X-ray lenses, known as wedged multi-layer Laue lenses. Improvements to the lens design and fabrication technique demand an accurate, robust, in situ and at-wavelength characterization method. To this end, a modified form of the speckle tracking wavefront metrology method has been developed. The ptychographic X-ray speckle tracking method is capable of operating with highly divergent wavefields. A useful by-product of this method is that it also provides high-resolution and aberration-free projection images of extended specimens. In this talk will outline the method and present recent results.

Short information on the speaker
Affiliation: School of Physics, University of Melbourne, Parkville, Victoria 3010, Australia
Research fields: x-ray imaging, phase retrieval, data science, software development
Short CV:
• 2013 - PhD on x-ray and electron holographic imaging at the University of Melbourne
• 2013 - Teaching Associate at Monash University
• 2013-2018 - Postdoctoral Researcher at the Centre for Free-Electron Laser Science (DESY)
• 2018-2020 - Research Fellow in Biomolecular Imaging at the University of Melbourne
• 2021 - ARC Discovery Early Career Researcher at the University of Melbourne

Presenter: MORGAN, A. (Univ. Melbourne, Australia)

Session Classification: PETRA III Session