

# ADVANCED MICROSCOPY WORKSHOP

Tuesday 21<sup>st</sup> March

G29, New Horizons  
20 Research Way, Monash University

Participation is free.

For catering purposes, please register by email to [scott.findlay@monash.edu](mailto:scott.findlay@monash.edu) stating which session(s) you plan to attend and whether you will join us for lunch.

<b>Advanced Electron Microscopy Technique Development</b>		
9:30	Tadas Paulauskas	Electron Floquet modes in the multislice approach
9:50	Kate MacArthur	Investigating the effects of channelling on the EDX signal
10:10	Les Allen	Modelling imaging and energy-loss spectra due to phonon excitation
10:30	<b>Coffee break</b>	
11:00	Laura Clark	Electron beams, with a twist: the current status of vortex beams in (S)TEM
11:20	Yueming Guo	<i>Title pending</i>
11:40	Matus Krajnak	Pixelated detectors and enhanced efficiency for differential phase contrast STEM
12:00	<b>Lunch</b>	
<b>Phase Contrast and Reconstruction</b>		
1:30	Naoya Shibata	Differential phase contrast scanning transmission electron microscopy (DPC STEM) imaging of materials and devices
1:50	Tim Gureyev	Noise-resolution uncertainty and information capacity of imaging system
2:10	Marcus Kitchen	CT dose reduction factors in the thousands using X-ray phase contrast
2:30	<b>Coffee break</b>	
3:00	David Paganin	Imaging using a completely delocalised probe: Proof-of-concept using hard X-rays
3:20	Harry Quiney	Soft X-Ray Ptychography
3:40	Hamish Brown	Phase retrieval in scanning transmission electron microscopy using segmented detectors
4:00	<b>End</b>	