

Frontiers in Quantum Matter workshop:

Quantum Many-Body Approaches in Chemistry and Physics

Olipphant seminar room 414, Research School of Physics and Engineering (RSPE), ANU

	Monday 17	Tuesday 18	Wednesday 19	Thursday 20
9.15-9.30	<i>Welcome</i>			
9.30-10.00	Angela White <i>Superflow in multi-component Bose-Einstein condensates</i>	Patrick McGlynn <i>Mean-field approach to many-body tunnelling</i>	Ellen McRae <i>Spin-orbit interaction in nuclei</i>	
10.00-10.50	Joshua Machacek <i>Virtual positronium</i>	Piotr Deuar <i>Freeing semiclassical field theory of the UV divergence</i>	Elena Ostrovskaya <i>The saga of exciton-polariton interaction</i>	Henryk Witek <i>Analytical wave functions in quantum mechanics: from model systems to real atoms</i>
<i>Morning tea</i>				
11.10-12.00	Jacinda Ginges <i>The many-body problem in precision heavy atoms</i>	Elke Pahl <i>Stochastic Game of Life in Configuration Space: Full CI Quantum Monte Carlo for Bosonic Systems</i>	Adrew Trustcott <i>Tests of Quantum non-locality using He* Atoms</i>	Cedric Simenel <i>Counting particles in microscopic systems</i>
12.00-12.50	Peter Gill <i>Accurate energy calculations on many-electron systems</i>	Anatoli Kheifets <i>Many-body effects in atoms and molecules exposed to ultra-short laser pulses</i>	Sean Hodgman <i>Higher-Order Quantum Correlations and Ghost Imaging with He* Atoms</i>	Nicola Gaston <i>The many-body problem in condensed matter: what makes a metal?</i>
Lunch				

2.00-3.00
(indicative)

Visit of the Heavy Ion Accelerator

Visit of the Polariton BEC lab

Visit of the Cold Atoms lab