

NanoS-E3 2013 Workshop Program

www.nanos2013.qut.edu.au

Tuesday 17 September

14.00 – 18.00	Check-in at the Coral Sea Resort – <i>check-in times may vary, please confirm with resort on arrival</i>
17.45 – 19.30	Registration , Welcome Drink and Student Poster Session – Nautilus room, Coral Sea Resort
19.30 – 21.30	BBQ Buffet Dinner and Best Student Poster Award – Coral Sea Resort Oceanfront Lawn Area Opening speech: Oscar Moze, Scientific Attache' Italian Embassy

Wednesday 18 September

7:45 – 8:10	Registration – Nautilus room, Coral Sea Resort (for delegates that missed the first registration)		
8:00 – 8:10	Welcome	Nunzio Motta	
8:10 – 8:50	Keynote: Quantum Devices	David Jamieson	Ion Implanted Donor Atoms with Nuclear and Electron Spin Readout: Engineering Multi-Atom Devices
8:50 – 9:10	Quantum Devices	Lloyd Hollenberg	Quantum Sensing of Nano-Scale Magnetic Fields Using the NV Spin Qubit
9:10 – 9:30	Quantum Devices	Michelle Simmons	Quantum Computing in Silicon and the Limits of Silicon Miniaturisation
9:30 – 9:50	Quantum Devices	Giuseppe Tettamanzi	Towards a Single Atom Transistor Based Quantum Metrology
9:50 – 10:10	Morning tea – Nautilus room		
10:10 – 10:50	Keynote: Quantum Devices	Sven Rogge	Dopant Atom in Silicon Sees the Light
10:50 – 11:10	Quantum Devices	Andrea Morello	Single-Atom Spin Qubits in Silicon
11:10 – 11:50	Keynote: Nanomaterials	Isabelle Berbezier	Ge/Si Nanostructures
11:50 – 12:10	Nanomaterials	Chennupati Jagadish	Compound Semiconductor Nanowires for Optoelectronic Device Applications
12:10 – 12:30	Nanomaterials	Michael Ford	Nanostructures From Electron Beam Driven Surface Chemistry
12:30 – 12:50	Nanomaterials	Aylin Karakuscu	Field Emission Properties of Metal Oxide Nanostructures
13:00 – 16:00	Lunch – Clipper Restaurant + break		
16:00 – 16:15	Afternoon tea – Nautilus room		
16:15 – 16:55	Keynote: Molecular Assembly	Federico Rosei	Exploring Molecular Assembly at Surfaces
16:55 – 17:15	Nanomaterials	Paolo Falcaro	Patterning Protocols for Positioning Functional Porous Materials
17:15 – 17:35	Nanomaterials	Colin Raston	Vortex Fluidics Synthesis of Functional Materials
17:35 – 17:55	Nanomaterials	Simon Ringer	Design of Nanomaterials via Insights Gained from Atom Probe Microscopy
17:55 – 18:15	Nanomaterials	Joe Shapter	Novel Solar Cells Using Carbon Materials
19:00 – 21:30	Gala dinner – Clipper Restaurant, Coral Sea Resort		
20:00 – 20:20	Changing the Science and Engineering Demographic	Ian Mackinnon	

Thursday 19 September

7:45 – 8:00	Conference Excursion Registration – Coral Sea Resort jetty		
8:00 – 13:30	Ocean rafting tour of the Whitsundays and lunch		
15:30 – 15:45	Afternoon tea – Nautilus room		
15:45 – 16:25	Keynote: Nanomaterials	Enrico Traversa	Materials for Therapy: Antioxidant Properties of Cerium Oxide Nanoparticles
16:25 – 16:45	Molecular Assembly	Carlo Mariani	Organic Molecules on Graphene
16:45 – 17:05	Nanomaterials	Anirudh Sharma	ZnO Buffer Layer for OPVs: Interfacial Energetics and Its Influence on Device Performance
17:05 – 17:25	Nanomaterials	Michael James	Studies of Organic Semiconducting Devices Using Neutrons
17:25 – 17:45	Nanomaterials	Jodie Bradby	Nanoindentation-Induced Phases of Germanium
17:45 – 18:05	Nanomaterials	Yuantong Gu	Tailoring the Edge Effect of Bilayer Graphene Sheets by sp ³ Bonds
18:05 – 18:25	Nanofabrication	Matteo Altissimo	Electron Beam Lithography at the Melbourne Centre for Nanofabrication
Dinner at own arrangement			

Friday 20 September

8:00 – 8:40	Keynote: Sensors	Guido Faglia	Oxide Nanowires for Opto-electronics and Energy Harvesting
8:40 – 9:00	Sensors	Francesca Iacopi	Graphene on Silicon Carbide, a Novel Material Approach for High Resolution Sensing
9:00 – 9:20	Sensors	Wojtek Wlodarski	Receptor Based Solid State Molecular Sensors
9:20 – 9:40	Sensors	Jerry Yu	The Next Generation of Hydrogen Nanosensors Using 2D Multiple Ultrathin Thin Film Heterojunctions
9:40 – 10:00	Sensors	Mahnaz Shafiei	Hydrogen Gas Sensing Properties of Schottky Diode based on MoO ₃ Nanoplatelets Coated by a Nano Thick Layer of La ₂ O ₃
10:00 – 10:20	Morning tea – Nautilus room		
10:20 – 11:00	Keynote: Energy/Environmental Materials	Paul Dastoor	Solar Paint: A New Paradigm in Organic Photovoltaics
11:00 – 11:20	Energy/Environmental Materials	Hongxia Wang	Earth Abundant New Light Absorber Materials for Next Generation Solar Cells
11:20 – 11:40	Energy/Environmental Materials	Evan Gray	Improved Lithium-Ion Battery Electrodes Through Hydrogen Modification of Nanostructure
11:40 – 12:00	Energy/Environmental Materials	Jinzhang Liu	Electrochemically Exfoliated Graphene for Electrode Films: Effect of Graphene Flake Thickness on the Sheet Resistance and Capacitive Properties
12:00 – 12:20	Summary & Conclusions	Nunzio Motta	
13:00 – 14:00	Lunch – Clipper Restaurant		