

# TUESDAY 9TH FEBRUARY

TIME	ACTIVITY
2:00-2:30 PM	Buses from Auckland and Palmerston North Arrive
3:00PM	Check-in Opens
	Pre-Event Activities
3:00-5:00 PM	<i>Option 1: Guided Tour of Whakarewarewa Living Māori Village</i> <i>Option 2: Scion, Te Whare Nui o Tuteata, Site Visit</i>
5:00-6:30 PM	Welcome Event + Drinks (Totara Room)

# WEDNESDAY 10TH FEBRUARY

TIME	LOCATION	Pohutu Cultural Theatre	LOCATION	Kauri	LOCATION	Totara
8:25-9:30 AM	POWHIRI/WELCOME Meet in Hotel Lobby at 8:25 AM and Walk to Whakarewarewa Māori Village Entrance					
9:30-10:00 AM	MORNING TEA AT WHAKAREWAREWA VILLAGE Walk Back to Holiday Inn by 9:55 AM					
10:00-11:00 AM	Keynote: Professor Catherine Bishop <i>Phase Transformations in Pb-free Ferroelectrics</i>					
	Novel Materials & Advanced Characterisation: Session 1		Future Computing & Tomorrow's Electronic Devices: Session 1		Materials for Sustainability – Towards Zero Carbon: Session 1	
11:10-11:25 AM	Bushra Anam	Two-dimensional allotropes of Ga <sub>2</sub> O <sub>3</sub> : A first principles study	Caixia Hou	High-Temperature (500 C) β-Ga <sub>2</sub> O <sub>3</sub> Schottky Contacts for High Power Electronics	Abdullah Abudayyeh	Copper catalysts for hydrogen production
11:25-11:40 AM	Santhosh Pandian	Non-Newtonian drop impacts: Spread and retraction on micropillars	Edoardo Galli	Electrical contacts to neuromorphic nanoparticle networks for unconventional computing	Ting Wu	Real-time absorption spectroelectrochemistry of iron porphyrin modified glassy carbon surface, for oxygen reduction reaction
11:40-11:55 AM	Sandhya Singh	Spin crossover in Fe(II) dinuclear helicates and tetranuclear cages	Hong Phan Hguyen	Carbon Nanotubes Aptasensors for Sensitive and Real time Detection of Adenosine	Samuel Treceno	Electrochemical Reduction of Si and Ti from Molten TiO <sub>2</sub> – SiO <sub>2</sub> – Al <sub>2</sub> O <sub>3</sub> – MgO – CaO Slag
11:55 AM-12:10 PM	Anusree Anil	Designing functional nanomaterials from stable protein 1	Yao Zhang	Skyrmion generation engineered by ionic liquid gating in ultra-thin films	Caitlin Casey-Stevens	Theoretical Investigation of CuPd Nanocluster Structure
12:10-1:00 PM	LUNCH					
	Novel Materials & Advanced Characterisation: Session 2		Novel Materials & Advanced Characterisation: Session 2		Materials for Sustainability – Towards Zero Carbon: Session 2	
1:00-1:15 PM	Phillippa-Kate Andrew	Optical micromachines for molecule stretching	Shinji Kihara	Interfacial factors in Nanoplastic Toxicity: Protein Corona Formation and Cellular Interactions	Sriram Sundaresan	Spin Crossover : Towards Predictable Tuning, Hysteresis in Solution and Surface Immobilisation
1:15-1:30 PM	Tarek Kollmetz	Polystyrene-block-poly(ethylene oxide) thin films fabricated from a solvent mixture for the co-assembly of polymers and proteins	Yiling Sun	Lab-on-a-chip platforms for single zoospore, fungal and oomycete studies	Charlie Ruffman	Enhancing the hydrogen evolution activity of MoS <sub>2</sub> using tunable carbon-based supports
1:30-1:45 PM	Sevgi Onal	Experimental and computational methods to reveal the impact of applied compression on cells	Jamal Ahmed Cheema	Electrochemical odorant sensing using insect odorant receptors	Nathan Harvey-Reid	Highly stable, Hybrid Metal-Organic Frameworks for Efficient Gas Separations
1:45-2:00 PM	Liam Carroll	Synchrotron X-ray analysis of surface modifications on beta-gallium oxide to control the surface conductivity and chemical reactivity	Matthew Ting	Fabrication of stiffness modulated conducting hydrogels	Celina Sikorska	Superatoms: catalysts for CO <sub>2</sub> activation
2:00-2:15 PM	Sashikumar Ramamirthan	Role of self-association in the interfacial behaviour of bovine beta-lactoglobulin	Aakanksha Rani	Peptide directed self-assembly of organic semiconductors for biocompatible electronics	Linda Chen	Colourful triple cation perovskite solar cell
2:15-2:30 PM	Qaisar Latif	Janus Particle Interactions based on passive microfluidic techniques: experiments	Susav Pradhan	Depletion of HP1α alters the mechanical properties of MCF7 nuclei	Stephanie Lambie	Modulating the thermal and structural stability of gallene via variation of atomic thickness
2:30-3:00 PM	AFTERNOON TEA					
3:00-4:00 PM	Keynote: Professor Jared Cole <i>A Superconducting Quantum Computer: Why We Might Want One and Why it's Hard to Build One</i>					
4:00-5:00 PM	Kōrero on the Couch					
5:00-5:30 PM	1 minute advertisements for posters					
5:30-6:00 PM	Group photo					
6:00-7:30 PM	Poster session					

# THURSDAY 11TH FEBRUARY

TIME	LOCATION	ACTIVITY
8:30-9:00 AM	Pohutu Cultural Theatre	Tea & Coffee on Arrival from 8:30 AM
9:00-10:00 AM		Keynote: Dr Jami Shepherd <i>Recent Advances in Ultrasound and Photoacoustic Imaging in New Zealand</i>
10:00-10:30 AM		MORNING TEA
10:30-10:50 AM		Dr Humphrey Feltham <i>Ligar: putting molecules in their right place</i>
10:50-11:10 AM		Hēmi Rolleston <i>Māori Commercialisation – the Do's and Don'ts</i>
11:10-11:30 AM		Kate DeRidder <i>Taking NZ science to global markets, and your role in that - Insights from a Deep tech incubator for MacDiarmid future science leaders</i>
11:30-11:50 AM		Boyd Multerer <i>Directions in software and hardware computing over the next few years</i>
11:50AM-12:10 PM		Dr Sonya Scott <i>Agricultural proteins for personal care, medical and 3D printing applications - 'Wool crusades'</i>
12:10-1:00 PM		LUNCH
1:00-1:15 PM	Shalini Divya	Aluminium-Ion Batteries- moving beyond lithium-ion!
1:15-1:30 PM	Nicola Altenhuber	An aptamer modified carbon nanotube field-effect transistor to measure insulin
1:30-1:45 PM	Tehreema Nawaz	Fabrication of ferromagnetic Ni <sub>1-x</sub> Fe <sub>x</sub> nanofibers produced by electrospinning technique
1:45-2:00 PM	Fraser Hughson	A 2.7V Aqueous Supercapacitor
2:00-2:15 PM	Alireza Akbarinejad	Electrochemically Switchable Polymer Bio-Interfaces for Selective Capture/Release of Cancer Biomarkers
2:15-2:30 PM	Ayoub Abdollahi	Impact of Heated Dairy Droplets on Surfaces
2:30-3:00 PM		AFTERNOON TEA
3:00-4:00 PM		Keynote: Professor Brendan McCane <i>Deep Learning and Applications</i>
4:00-5:00 PM		Keynote: Dr Rhys Jones <i>Climate Action and the Opportunities for a Healthier, Fairer and More Inclusive Society</i>
5:00-7:30 PM		
7:30-10:00 PM		Conference dinner

## FRIDAY 12TH FEBRUARY

TIME	LOCATION	Pohutu Cultural Theatre	LOCATION	Kauri
	ACTIVITY		ACTIVITY	
9:00-10:00 AM	Keynote: Dr Khoon Lim <i>Light-Activated Hydrogels for 3D Bioprinting and Tissue Regeneration</i>			
10:10-11:40 AM	Future Leaders Programme Invited Speaker: Mitali Purohit		Investigator Session	
11:40 AM - 12:40 PM	LUNCH			
12:40-1:40 PM	Keynote: Professor Michelle Coote <i>Electricity as a Sustainable Catalyst of Chemical Reactions</i>			
1:40-2:40 PM	Keynote: Toby Morris <i>Draw Me a Diagram: Communicating Complex Ideas Simply</i>			
2:40-3:00 PM	Closing Remarks			
3:00 PM	DEPARTURE			