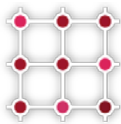


Day 1: Workshop Day
Monday 30 June

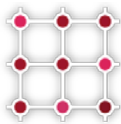
8:00am	Registration Open – S-block foyer, level 1, University of Waikato	
	Coffee will be available from 8am	
9:00am	Session 1 Room S1.04 Chair: Jo Lane Welcome: Opening by Prof Alister Jones, DVC, University of Waikato	
9:10am	Day 1 Opening Address: Dave Turek, VP Exascale Systems, IBM The Evolution of High Performance Computing: System Design in a Data Centric World	
10:00am	Morning tea	
	Workshops	
10:30am	Workshop 1 Room S1.04 Chair: John Rugis, Dan Sun NZ HPC Applications Workshop Genomics 5 min Q&A after each presentation Seeing through the noise: visualizing publicly accessible cancer genomics data Assoc Prof. Mik Black, University of Otago (15 min)	Workshop 2 Room S1.02 Chair: Peter Reutemann NZ Data Mining Workshop Attendants will be able to familiarize themselves with Weka, using the highly successful MOOC series "Data Mining with Weka" for self-study (experienced Data Miners will be at hand to answer questions). The MOOCs are available at the following URL (and stay open throughout the course of the conference): http://ernz2014-dm.waikato.ac.nz/
	10:50am	Genome-wide Copy Number Variation (CNV) detection in <i>Malus x domestica</i> James Boocock, University Of Otago (5 min)
11:00am	A bioinformatics workflow for detecting signatures of selection in genomic data Murray Cadzow, University of Otago (5 min)	
11:10am	Bioinformatic analysis of synthetic lethal genetic interactions in breast cancer Thomas Kelly, University of Otago (5 min)	
11:20am	Enabling very complex experiments: Genomics for production & security in a biological economy Rob Elshire, AgResearch NZ (15 min)	
11:40am	Open Discussion Dr. John Rugis, University of Auckland (20min)	
12:00pm	Lunch	
	Workshops continue	
1:00pm	NZ HPC Applications Workshop Computational Biology and Physics 5 min Q&A after each presentation Towards a Parallelised Fitting Infrastructure for Computational Molecular Cardiovascular Research Dr. Mike Cooling, Auckland Bioengineering Institute(5min)	NZ Data Mining Workshop WEKA in the ecosystem for scientific computing This session will demonstrate how to access the WEKA data mining software from Octave/Matlab, R, and Python, and will also



1:10pm	The Murchison Widefield Array – an example of NZ data science Dr. Melanie Johnston-Hollitt, Victoria University of Wellington (5 min)	consider how some R functionality can be applied from within WEKA. Finally, we will discuss facilities for distributed computation in WEKA. http://www.cs.waikato.ac.nz/ml/weka/
1:20pm	Environmental Modelling at both large and small scales: How simulating complexity leads to a range of computing challenges. Bryan Lawrence, University of Reading (15min)	
1:40pm	Studying allosteric enzyme inhibition using simulated molecular dynamics Dr. Benjamin Roberts, NeSI (15 min)	
2:00pm	The stereodynamics of association of liquid crystal forming molecules Prof. Andrew Rohl, NeSI (15 min)	
2:20pm	Multiscale modelling of saliva secretion Dr. John Rugis, University of Auckland (15 min)	
2:40pm	Numerical experiments with the N-body code GENGA Dr. Philip Sharp, University of Auckland (15 min)	
3:00pm	Afternoon Tea	
<i>Workshops continue</i>		
3:15pm	NZ HPC Applications Workshop Methods and Infrastructure 5 min Q&A after each presentation A faster parallel algorithm for matrix multiplication on a mesh array Dr. Sung Bae, NeSI (15 min)	NZ Data Mining Workshop Scientific workflow management with ADAMS Workflow systems allow researchers to define and document complex data processing tasks and experiments using a graphical approach. In this session, ADAMS will be used for data mining, data processing and data visualization tasks. We will also show how workflows can be easily extended using R, Jython and Groovy. https://adams.cms.waikato.ac.nz/
3:35pm	Enabling high throughput research on HPC systems Dr. Francois Bissey, University of Canterbury (15 min)	
3:55pm	Desktop integration with supercomputers Martin Feller, University of Auckland (5 min)	
4:05pm	Science domains in NeSI cluster job submissions - first results Gene Soudlenkov, NeSI (5 min)	
4:15pm	Open Discussion Dr. John Rugis, University of Auckland (75min)	
5:30pm – 7:30pm	Opening Reception An informal gathering, open to all conference delegates in the Playhouse Foyer of the Gallagher Academy of Performing Arts.	

Day 2: Symposium
Tuesday 1 July

8:00am	Registration Open – S-block foyer, level 1, University of Waikato	
	Coffee will be available from 8am	
	Session 1 Room S1.04 Chair: Nick Jones	
9:00am	Day 2 Opening Address: Bryan Lawrence, University of Reading: Professor of Weather and Climate Computing. National Centre for Atmospheric Science: Director of Models and Data. STFC: Director of the Centre for Environmental Data Archival. The road to exascale for climate science: crossing borders or crossing disciplines, can one do both at the same time?	
9:50am	eResearch and HPC training opportunities in New Zealand – an overview and future vision Dr. Jaison Mulerikkal and Stuart Charters, NeSI (15 min)	
10:05am	What a mission! New skills and services that support humanities research Charlotte Brown and Vanessa Gibbs, University of Otago (15 min)	
10:20am	Morning Tea – Sponsored by DataDirect Networks	
	Session 2 Room S1.04 Chair: Glen Slater, eResearch 2020 Programme Advisor	
10:45am	REANNZ: Scaling up to meet the needs of eResearch Steve Cotter, REANNZ (15 min)	
11:00am	Envision, Collaborate, and innovate with access federation Sat Mandri, Tuakiri NZ Access Federation, NeSI Heath Marks, Australian Access Federation (15 min)	
11:15am	NeSI: Advanced computation and analysis for New Zealand researchers Nick Jones, NeSI (15 min)	
11:30am	NZGL – Bioinformatics and Bio-IT services: Computer-assisted analysis and data storage for New Zealand scientists Dr. Tony Lough, NZ Genomics Limited (15 min)	
11:45am	e-Infrastructures Panel: Growing and developing e-infrastructures in NZ (30 min)	
12:15pm	Lunch	
	Parallel Sessions	
	Stream 1 Room S1.04 Chair: Mark Gahegan	Stream 2 Room S1.02 Co-Chairs: Alison Stringer, Fabiana Kubke
1:00pm	The Australian National Research Cloud from Above: 10k cores and counting... Dr. Nigel Ward and/or Prof Glenn Maloney, NeCTAR (15 min)	NZ Research Data Workshop: Practice and implementation Data integration in Canterbury: Lessons learned from the CEISMIC Archive Dr James Smithies, University of Canterbury (15 min)
1:15pm	Our national eResearch cloud Bruno Lago, Catalyst IT (15 min)	An Advanced Digital Environment supporting Spinal Cord Injury in Australasia Anthony Stell, University of Melbourne (15 min)
1:30pm	Science defined networking Sam Russell, REANNZ (15 min)	An Australasian-wide Registry of Juvenile Diabetes Patients in the Cloud Loren Bruns, Melbourne eResearch Group (15 min)



1:45pm	Pentaho PDI – a Swiss Army chainsaw for data Piers Harding, Catalyst IT (15 min)	The National Environmental Monitoring Standards Initiative Alison Stringer, Ministry for the Environment (15 min)
2:00pm	Scalable Distributed Storage with CEPH Ricardo Rocha, Catalyst IT (15 min)	LERNZdb Freshwater Database Aroon Parshotam, University of Waikato, Environmental Research Institute (15 min)
2:15pm	Using "unsafe" delegated authorisation to manage access to sensitive data Dr. David Eyers, University of Otago (15 min)	Developing an Analytics Infrastructure at the Ministry of Social Development Dr. Michael O'Neil, Ministry of Social Development (15 min)
2:30pm	Stay Tuned Jordi Blasco, NeSI (15 min)	Integrated Data Infrastructure - cross-government collaboration to achieve data-driven decision making Jessica Young, Statistics NZ (15 min)
2:45pm	Doing BigData better with Hadoop Impala DB and R Piers Harding, Catalyst IT (15 min)	Supporting data preservation. A vision for New Zealand Peter McKinney, National Library of New Zealand (15 min)
3:00pm	Afternoon Tea – Sponsored by SGI	
Parallel Sessions		
	Stream 1 Room S1.04 Co-chairs: Sina Masoud-Ansari, John Rugis, Jordi Blasco	Stream 2 Room S1.02 Co-Chairs: Alison Stringer, Fabiana Kubke
3:15pm	HPC Accelerators Workshop NVIDIA CUDA Enabled Applications and Latest Developments Sina Masoud-Ansari (15min) Open Discussion (15min)	NZ Research Data Workshop: Policy and motivation Discussion (120mins)
3:45pm	NVIDIA CUDA Architecture and Programming Model John Rugis (30min) Open Discussion (15min)	
4:30pm	Intel Phi: Architecture and Programming Model Jordi Blasco (30min) Open Discussion (15min)	
5:15pm	Day 2 Wrap Up in S1.04 Chair: Jo Lane	
5:45pm – 9:30pm	Dinner Function at the Narrows Landing, 431 Airport Road, RD 2, Tamahere, Hamilton The bus departs directly after the conference at 5.45pm, from Gate 8.	

Day 3: Symposium
Wednesday 2 July

8:00am	Registration Open – S-block foyer, level 1, University of Waikato
	Coffee will be available from 8am
	Session 1 Room S1.04 Chair: Jo Lane
9:00am	Day 3 Opening Address: Kaitlin Thaney, Director, Mozilla Science Lab Making the web work for science
9:50am	GigaScience – improving data sharing, integration and reproducibility Dr Nicole Nogoy, GigaScience/ BGI (15 min)
10:05am	Recent telematics electroacoustic music: Integrating external data streams Assoc Prof. Ian Whalley, University of Waikato (15 min)
10:20am	Morning Tea – Sponsored by Catalyst IT
	Session 2 Room S1.04 Chair: John Hine
10:45am	JASMIN: the Joint Analysis System for big data. Bryan Lawrence, University of Reading (15min)
11:00am	Selection and Trialling of a Software Framework for Interoperable Freshwater Modelling Dr. Sandy Elliot, NIWA (15 min)
11:15am	Communicating and managing the 'messy knowledge' of biology wet lab experiments Cameron McLean, University of Auckland (15 min)
11:30am	As We May Link: A Model to Support Aggregated Scientific Knowledge Prashant Gupta, University of Auckland (15 min)
11:45am	NeCTAR virtual laboratories – the research drivers for cloud Glenn Moloney/Nigel Ward, NeCTAR (15 min)
12:00pm	Lunch
	Session 3 Room S1.04 Chair: Ian Whalley
1:00pm	eResearch for the non-eResearcher Dr. Fabiana Kubke, University of Auckland (5 min)
1:05pm	eResearch at VUW: The eScience Consultant's Tale Kevin Buckley, Victoria University of Wellington (15 min)
1:20pm	The challenges of using YouTube as a data resource Assoc Prof. Craig Hight, University of Waikato (15 min)
1:35pm	Speeding up science by harnessing the power of peer review Dr. Andrew Preston, Publons (15 min)
1:50pm	Data visualisation to communicate research Harkanwal Singh, New Zealand Herald (5 min)
	Panel
	Session 4 Room S1.04 Chair: Glen Slater
2:00pm	eResearch 2020 Panel: What will researchers need from eResearch by 2020?
3:45pm	Conference end

** Programme is subject to change.