

eResearch NZ 2015

Leading research collaboration in New Zealand

23 March to 25 March, Queenstown

Monday 23 rd March			
8.00am	Registration Open, Level 5 Foyer, Rydges Lakeland Resort, Queenstown		
Coffee will be available from 8.00am Sponsored by DELL			
9.20am	Session: Plenary Room: Ben Lomond Room Conference Welcome Address: Nick Jones, 2015 Conference Chair, NeSI		
9.30am	Plenary Address: Jane Yu, MD, PhD is the Worldwide Team Lead for Translational Medicine Solutions within IBM Software Defined Infrastructure. Accelerating Life Science Discovery using a High-Performance Analytics Platform in a Collaborative Environment		
10.00am	Session: 1.1 Room: Queenstown Chair: Dan Sun HPC Research Applications Workshop Automating Distributed Workflows with the Cylc Suite Engine Hilary Oliver, NIWA (15min) Acinar Cell Modelling: Recent Simulation Results John Rugis, NeSI (15min) Environmental Prediction "an HPC Grand Challenge" Michael Uddstrom, NIWA (15min) Discussion	Session: 1.2 Room: Remarkables Chair: Jamie Curtis Networked Applications Workshop High-speed data transfer in REANNZ Se-Young Yu, University of Auckland (15min) The 2-Meter Mole: Using Ultra-high Definition 4K Video for Telemedicine Jeffrey Weekley, REANNZ (15min) Application of Middleware Technologies to Enable Radio Astronomy eResearch Mahmoud Mahmoud, AUT University Student sponsored by IBM (15min)	Session: 1.3 Room: Ben Lomond Chair: Glen Slater Research Data Workshop Lincoln Hub DATA² project: Data architecture transforming access & analysis Stuart Charters, Lincoln University (15min) The Data Futures Forum Che Tibby, Statistics New Zealand (15min) eR2020 Glen Slater, eResearch 2020
11.00am	Morning Tea Sponsored by SGI		
11.30am	Session: 2.1 Room: Queenstown Chair: John Rugis HPC Research Applications Workshop Very High Resolution Numerical Weather Prediction using NIWA's HPCF Stuart Moore, NIWA (15min) High-Performance Computing and the Deep South National Science Challenge Olaf Morgenstern, NIWA (15min)	Session: 2.2 Room: Remarkables Chair: Jeffrey Weekley Networked Applications Workshop New Zealand's fastest ever Internet Connection - to a hotel Jamie Curtis, REANNZ (15min) 3D Visualisation of Network Data Hayley van Waas, REANNZ Student sponsored by Microsoft (15min)	Session: 2.3 Room: Ben Lomond Chair: Steve Knight Research Data Management Workshop Harnessing Big Data Storage: New Technologies to Store Data Forever at Virtually No Cost Matthew Starr, Spectra Logic (15min) Taming Big Data: Accelerating Discovery via Outsourcing and Automation Kyle Chard, University of Chicago (15min)

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	<p><u>First principles modelling of solutions using petascale supercomputing</u> Andrew Rohl, Curtin University (15min)</p> <p><u>MIGRATE: a case study of optimizing of an open source software for estimation of population sizes and gene flow</u> Jordi Blasco, NeSI (15min)</p> <p><u>Development of a parallel, distributed fitting platform for Systems Biology</u> Mike Cooling, University of Auckland (5min)</p> <p><u>Meso- and macro scale permeability simulations on the Pan cluster</u> Bart Verleye, NeSI (15min)</p>	<p><u>NFShunt: Accelerating Science Data Transfers with Software-Defined Networking</u> Christopher Lorier, REANNZ (15min)</p>	<p><u>RDSI: enabling a cultural shift in how research data is stored in Australia</u> Viviani Paz, The University of Queensland (15min)</p> <p><u>The Integrated Data Infrastructure: A year of expansion</u> Che Tibby, Statistics New Zealand (15min)</p> <p><u>SSERCA-DDN Collaborative Research on Multi-institutional Data Management</u> Daniel Majchrzak, Sunshine State Education and Research Computing Alliance (15min)</p> <p><u>Digital Preservation as a Service: A whole of country approach</u> Steve Knight, National Library of New Zealand (15min)</p>
1.00pm	Lunch Sponsored by NeCTAR		
2.00pm	<p>Session: 3.1 <i>Room: Queenstown</i> <i>Chair: John Rugis</i></p> <p>HPC Research Applications Workshop</p> <p><u>Application of HPC to simulations of seismic wave propagation</u> Francois Bissey, University of Canterbury (15min)</p> <p><u>Rapid Parameterisation of Small Molecules</u> Ben Roberts, NeSI (15min)</p> <p><u>Bifurcating Blood Vessel Quad Mesh Generation for Large-Scale Parallel Simulations</u> Constantine Zakkaroff, University of Canterbury (15min)</p> <p><u>AAF hot topics & federated identity management</u> Heath Marks, Bradley Beddoes, Australian Access Federation 15min)</p>	<p>Session: 3.2 <i>Room: Remarkables</i> <i>Chair: T.Charles Yun</i></p> <p>Networked Applications Workshop</p> <p><u>The use of REANNZ for International Astronomical and Geodetic Research</u> Stuart Weston, AUT University (15min)</p> <p><u>HPC on the cloud</u> Bruno Lago, Catalyst IT (15min)</p> <p><u>Trans-Pacific Submarine System Delivering 4K Encrypted Video Signals</u> Michael Newbery, Vodafone NZ</p>	<p>Session: 3.3 <i>Room: Ben Lomond</i> <i>Chair: Howard Amos</i></p> <p>Research Data Workshop</p> <p><u>Advanced Clinical Study Monitoring through Distributed Registry Data Management</u> Anthony Stell, University of Melbourne (15min)</p> <p><u>A Genomics Empowered National Breast Cancer Clinical Data Management System</u> Phillip Lindsay, NZGL (15min)</p> <p><u>Delivering NeSI data services to researchers at University of Otago</u> Kieron Mottley, NeSI (15min)</p> <p><u>Privacy-oriented Geospatial Data Linkage: A Case Study from the AURIN Project</u> Richard Sinnott, University of Melbourne (15min)</p> <p>Panel discussion and workshop wrap up Howard Amos, Steve Knight (30min)</p>

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3.30pm	Afternoon Tea Sponsored by Spectra Logic
4.00pm - 6.00pm	<p>Session: Demonstrations Room: Clancy Chair: T.Charles Yun</p> <p>'Demonstrations & Drinks' Sponsored by IBM Join us for an informal gathering over demonstrations, a chance to see research in action while enjoying a drink with delegates. Followed by drinks in the Fireside Lounge Bar, 6th Floor from 6pm</p>

Tuesday 24 th March				
5.30am	7km fun run, meet at the Rydges Lobby for a group run around the lake – Sam Russell			
8.00am	Registration Open, Level 5 Foyer, Rydges Lakeland Resort, Queenstown			
Coffee will be available from 8am Sponsored by DELL				
9:00am	<p>Session: Plenary Room: Ben Lomond Room Chair: Steve Weaver</p> <p>e-Infrastructures Update NZGL update - Tony Lough REANNZ update - Steve Cotter NeSI: growing research that computes - Nick Jones</p>			
10.30am	Morning Tea Sponsored by DataDirect Networks Clancy Room will be open for demonstrations			
10.50am	Session: Plenary Room: Ben Lomond Room Chair: Tony Lough			
11.00am	<p>Plenary Address: Dave Fellows, Principal Group Engineering Manager Azure HPC & Big Compute, Microsoft</p> <p>Is the Cloud a game changer for eResearch?</p>			
11.30am	<p>Keynote Address: Prof Peter J Hunter FRS, Auckland Bioengineering Institute, University of Auckland</p> <p>Computational Physiology: Connecting molecular systems biology with clinical medicine</p>			
12.30pm	Lunch Sponsored by NeCTAR Clancy Room will be open for demonstrations			
2.00pm - 4.00pm	<table border="1"> <tr> <td> <p>Session: 5.1 Room: Queenstown Chair: Tony Lough</p> <p>Applications</p> <p>Dell's IT Innovation Lab – Research in the cloud Andrew Underwood, DELL (15min)</p> <p>A Genomics Virtual Laboratory Andrew Lonie, University of Melbourne (15min)</p> <p>Building a 'self-service' Research Cloud Nigel Ward, NeCTAR (15min)</p> </td> <td> <p>Session: 5.2 Room: Remarkables Chair: Kyle Chard</p> <p>Enhanced Campus Bridging via a Campus Data Service Using Globus and the Science DMZ</p> <p>Spaces are limited, please click here to confirm your attendance.</p> </td> <td> <p>Session: 5.3 Room: Ben Lomond Chair: Glen Slater</p> <p>eResearch 2020 Panel</p> <p>Panel Discussions by: Peter Hunter Rhys Francis Shaun Hendy Evelyn Wareham</p> </td> </tr> </table>	<p>Session: 5.1 Room: Queenstown Chair: Tony Lough</p> <p>Applications</p> <p>Dell's IT Innovation Lab – Research in the cloud Andrew Underwood, DELL (15min)</p> <p>A Genomics Virtual Laboratory Andrew Lonie, University of Melbourne (15min)</p> <p>Building a 'self-service' Research Cloud Nigel Ward, NeCTAR (15min)</p>	<p>Session: 5.2 Room: Remarkables Chair: Kyle Chard</p> <p>Enhanced Campus Bridging via a Campus Data Service Using Globus and the Science DMZ</p> <p>Spaces are limited, please click here to confirm your attendance.</p>	<p>Session: 5.3 Room: Ben Lomond Chair: Glen Slater</p> <p>eResearch 2020 Panel</p> <p>Panel Discussions by: Peter Hunter Rhys Francis Shaun Hendy Evelyn Wareham</p>
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	<p>Promoting and supporting key analytical equipment using iLab Solutions Peter Cattin, University of Auckland (15min)</p> <p>New Zealand Genomics: Investing in, Facilitating and Enabling Genomics Science Anthony Thrush, NZGL (15min)</p>		
4.00pm	Afternoon Tea Sponsored by FigShare Clancy Room will be open for demonstrations		
4.30pm – 6.00pm	<p>Session: 6.1 Room: Queenstown Chair: Jeffrey Weekley</p> <p>SDN</p> <p>A short history of SDN operationalization research in NZ Josh Bailey, Google (15min)</p> <p>Fastlane: toll roads for the internet Sam Russell, REANNZ (15min)</p> <p>Using SDN for request rerouting in ISP operated CDNs Jeffrey Lai, Victoria University of Wellington (15min) <i>Student sponsored by Microsoft</i></p> <p>RouteFlow Dynamic Mapping Configuration Trung Truong, REANNZ (15min) <i>Student sponsored by IBM</i></p>	<p>Session: 6.2 Room: Remarkables Chair: Kyle Chard</p> <p>Enhanced Campus Bridging via a Campus Data Service Using Globus and the Science DMZ</p> <p><i>Spaces are limited, please click here to confirm your attendance.</i></p>	<p>Session: 6.3 Room: Ben Lomond Chair: Liz Coulter</p> <p>IT Panel</p>
6.30pm	Conference Dinner Sponsored by Microsoft Prime Waterfront Restaurant and Bar, 2 Rees Street, Queenstown		



Wednesday 25th March

8.30am	Registration Open, Level 5 Foyer, Rydges Lakeland Resort, Queenstown		
	Coffee will be available from 8am Sponsored by DELL		
8.50am	Session: Plenary Room: Ben Lomond Room Chair: Steve Cotter		
9.00am	Keynote Address: Dr Rhys Francis, Consultant, eResearch Futures Networks, Systems, Data and Tools: The Role of Asset Classes in eResearch		
10.00am	Morning Tea Sponsored by Catalyst IT		
10.30am	<p>Session: 7.1 Room: Queenstown Chair: Rob Elshire</p> <p><u>Biospectra-by-Sequencing Genetic Analysis Platform Workshop</u></p> <p>Presented by: Patrick Biggs Mingshu Cao Marcus Davy Rob Elshire Zane Gilmore Ruy Jauregui Roger Moraga Roy Storey</p>	<p>Session: 7.2 Room: Remarkables Chair: Nick Spencer</p> <p>Applications & Collaborations</p> <p><u>eResearch gets dirty: complex network approaches to digital soil science</u> Dion O’Neale, University of Auckland (15min)</p> <p><u>eResearch in Forestry</u> Andrew Dunningham, Scion (15min)</p> <p><u>'Climateprediction.net' and 'climateeducation.net' - global citizen eScience in climate.</u> Suzanne Rosier, NIWA (15min)</p> <p><u>Evolving in the Cloud Era: making the switch from Infrastructure Management to Service Provider Management</u> James Knapp, VIFX (15min)</p> <p>AeRO – Organising for Joined-up and Collaborative eResearch Infrastructure and Services Rob Cook, QCIF (15min)</p> <p><u>Highlighting the understated challenges of power efficiency within exascale computing</u> David Eysers, University of Otago (15min)</p> <p><u>Data Management for Research – Australian Deployment</u> David Honey, SGI (15min)</p>	<p>Session: 7.3 Room: Ben Lomond Chair: Marcus Gustafsson</p> <p>Skills</p> <p><u>Digital Literacy for Reproducible, Open, Collaborative Science (ROCS)</u> M. Fabiana Kubke, University of Auckland (75min)</p> <p><u>Skill Improvements versus Interface Designs for eResearchers</u> Lev Lafayette, V3 Alliance (15min)</p> <p><u>NeSI, I have a problem and I need support</u> Dan Sun, NeSI (5min)</p> <p><u>EiR: Engineer in Residence, a proposal for international collaboration</u> T. Charles Yun, REANNZ (5min)</p> <p><u>The Innovation Game: A Virtual CSU model for eResearch support</u> Matt Plummer, Victoria University of Wellington (15min)</p> <p><u>NeSI capability development for researchers: Providing a supported framework for learning</u> Stuart Charters, Lincoln University (15min)</p>
12.45pm	Session: 7.3 Room: Ben Lomond Conference Closing Address: Steve Cotter, 2016 Conference Chair, REANNZ		
1.00pm -2.00pm	Lunch Sponsored by NeCTAR Conference End		

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Demonstrations

Monday 4-6pm

Tuesday catering breaks

IBM HPC Cloud Computing Demo

Jane Yu, IBM

[Visualisation of Christchurch 2010 Boxing Day aftershock](#)

Sung Bae, NeSI

[A Demonstration of Recent Acinar Cell Modelling Visualisation Techniques](#)

John Rugis, NeSI

[A Genomics Virtual Laboratory](#)

Andrew Lonie, University of Melbourne

[Collaborations between REANNZ, NZGL and NeSI](#)

Patrick Biggs

[WebGL - 3D data visualisation for the masses](#)

Nick Young, NeSI

[Spectra Logic - BlackPearl™ Deep Storage Gateway](#)

Matthew Starr, Spectra Logic

[Collaborative Cloud Based Storage To Accelerate Research Activity](#)

Michael Cole, EMC Corporation

Microsoft Demonstration

Presenter TBC

Dell Demonstration

Presenter TBC

Visualisation you can almost touch

Bruno Lago, Catalyst IT