



New Zealand Research Software Engineering Conference | 2020

Tuesday 8 September (Pre-conference event)

16:00 - 17:00 Social event/Welcome to the Virtual Conference Platform

Wednesday 9 September (Day 1)

10:00 - 10:30 Conference Welcome Address

10:30 - 10:35 Mini Break

10:35 - 11:25 Presentation Session 1

Theme: Reproducibility in biomedical modeling

10:40 Dr David Nickerson - Session intro

10:50 Hugh Sorby - Reproducible and FAIR modelling with CellML and libCellML.

11:00 Dewan Sarwar - Epithelial Modelling Platform: A Tool for Model Discovery and Construction of Computational Models of Epithelial Transport

11:10 Dr Karin Lundengård - Physiome curation system for reproducible models

11:25 - 11:45 Morning Tea/Networking

11:45 - 12:45 Keynote

11:45 Dr Hilary Oliver, Senior Research Software Engineer, NIWA - Scaling: it's all (well, quite a lot!) about the workflow.

12:45 - 13:45 Lunch/Networking

13:45 - 14:15 Networking Activity

14:15 - 15:15 Presentation Session 2

Theme: Parallel computing and Dask

14:15 Dr Pablo Higuera - Parallel CFD Modelling to Explore Scale Effects in Coastal Engineering Wave-Structure Interaction (WSI) simulations

14:35 Dr Wolfgang Hayek - Parallel Computing with Dask

14:55 Maxime Rio

15:15 - 15:35 Afternoon Tea/Networking

15:35 - 17:05 Presentation Session 3

Theme: RSE show and tell

15:35 Dr Chris Scott & Dr Damien Mather- OpenACC pgfortran: substantial speedups and beyond for the O(3) Condensation algorithm for determinants and estimation

15:55 Rere-No-A-Rangi Pope & Rhys Owen - NeSlssity is the mother of invention

16:15 - 16:25 Mini Break

16:25 Dr John Rugis - Processing Calcium Signalling Fluorescence Microscopy Image Stacks

16:45 Mingrui Yang - Native distributed and MPI parallelism in the high-level language Julia for quantum Monte Carlo

17:05 - 17:35 Networking happy hour

17:35 End of Day One

Thursday 10 September (Day 2)

10:20 - 10:30	Housekeeping welcome
10:30 - 10:40	Mini Break
10:40 - 11:20	Presentation Session 4 Theme: best practice
	10:40 Dr Alexander Pletzer - Harnessing more compute power on NeSI's platforms with OpenMP
	11:00 Dr Chris Seal - Customising an open source project - the tension between convergence and divergence
11:20 - 11:40	Morning Tea/Networking
11:40 - 13:10	Presentation Session 5 Theme: Research tools
	11:40 Dr Kyle Chard - funcX: A Federated Function Serving Fabric for Science
	12:00 Dr Louise Ord - Developing an Interactive Genome Analytics Tool – an Interface to Scientific Insight
12:20 - 12:30	Mini Break
	12:30 Eric Burgueno - Practical recipe standards for Singularity containers to make life easier for Data Scientists
	12:50 Marko Laban & Chris Scott - Running Web Applications on HPC using containers
13:10 - 14:00	Lunch/Networking
14:00 - 14:35	Lightening Talks
	14:00 Dr Michelle Barker - FAIR for Research Software working group
	14:05 Bruno P. Kinoshita - Cylc user interface scalability
	14:10 Nilani Algiriyage - Traffic Flow Estimation based on Deep Learning using CCTV Images
	14:15 Dr Chris Scott, Marko Laban & Yuriy Halytskyy - Jupyter on NeSI
14:35 - 14:55	Afternoon Tea/Networking
14:55 - 15:55	Keynote
	14:55 Dr Denis Bauer, Principal Research Scientist, CSIRO - How computational science and data-driven health decisions help in the fight against COVID-19
15:55 - 16:05	Mini Break
16:05 - 16:30	Closing remarks & hackathon winner(s) announced
16:30 - 17:00	Networking Activity
17:00	End of Conference