

## NZRSE 2022 Programme

<b>12th September, 2022 - Day 1</b>	
<b>9:30am</b>	Mihi Whakatau and Welcome address
<b>10:00am</b>	Keynote : Aleksandra Pawlik <b>[Chair: Wolfgang Hayek ]</b>
<b>11:00 - 11.20am</b>	Morning Tea Break
<b>Tips and Tools for RSE's [Chair: Murray Cadzow]</b>	
<b>11:20 - 11:40</b>	So you want to run your own analysis - tips & tricks for getting started on writing research software - Johanna M. M. Bayer (University of Melbourne)
<b>11:40 - 12:00</b>	Portability. The challenges of up-scaling a software package from a one-team tool to international co-development - Mr F. Jorge Bornemann (NIWA)
<b>12:00 - 12:20</b>	Using {golem} to create sustainable and reproducible apps in R - Bridget Armstrong (ESR), Richard Dean (ESR)
<b>12:20 - 12:40</b>	What Flexi-HPC could mean for RSEs and DevOps - Jun Huh (NeSI)
<b>12:40 - 12:50</b>	<i>Demo:</i> Interactive visualisation of modelled biological cells using a game engine - John Rugis (UoA)
<b>12:50pm</b>	Lunch Break
<b>Workflows [Chair: Nisha Ghatak ]</b>	
<b>2:00 - 2:20</b>	Are workflows the next big thing in scientific computing? - Alexander Pletzer(NeSI)
<b>2:20 - 2:40</b>	Building High Performance Computing Workflows (feat. Bash, Slurm) - Callum Macdonald Walley (NeSI)
<b>2:40 - 2:50</b>	<i>Demo:</i> Cylc 8 Workflow Orchestration on NeSI Platforms (or your Laptop) - Dr Hilary Oliver (NIWA)
<b>2:50 - 3:00</b>	<i>Demo:</i> RStudio Workflow in an HPC Environment - Matt Bixley (NeSI)
<b>3:00 - 3:15</b>	Afternoon Tea Break
<b>Engaging Communities [Chair: Janet Stacey]</b>	
<b>3:15 - 3:35</b>	Building a Community of Practice: Experiences from launching NIWA's Data Science Journal Club - Mr F. Jorge Bornemann

<b>3:35 - 3:40</b>	<i>Lightning Talk:</i> Visible Research Software Interest Group - Dr Paula Andrea Martinez (ARDC)
<b>3:40 - 3:45</b>	<i>Lightning Talk:</i> Virtual Reality – More Than Just Science Engagement - Dr Ben Jolly
<b>3:45 - 4:05</b>	Mobile first – using shinyMobile to improve engagement of science in communities - Ms Lillian Lu (ESR), Richard Dean (ESR)
<b>4:05 - 4:20</b>	Break
<b>4:20 - 5:10</b>	<i>BoF:</i> Running a Carpentries Workshop - Dr Murray Cadzow (UoO)
<b>5:15pm</b>	Networking
<b>5:45pm</b>	End of day 1

<b>13th September, 2022 - Day 2</b>	
<b>9:15am</b>	Welcome to Day 2
<b>9:30am</b>	Keynote : Daniel Katz [ <b>Chair: Nick Jones</b> ]
<b>10:30-10:50</b>	Morning Tea Break
<b>Tools and Applications [Chair: Paula Martinez]</b>	
<b>10:50-11:10</b>	A Data Cube for Collaborative Analysis of Antarctic Geospatial Data - Dr Ben Jolly (MWLR)
<b>11:10-11:30</b>	Developing a package to fit piecewise nonlinear curves - Dr Gemma Mason (NIWA)
<b>11:30-11:50</b>	A new decentralised data management model to fit the challenges in multi-agency collaboration in flood management in NZ - Phil Mourot (Te Ipu o te Mahara, Artificial Intelligence Institute, University of Waikato)
<b>11:50-12:10</b>	Automated generation of hydrologically conditioned Digital Elevation Models for national-scale hydrodynamic modelling - Ms Rose Pearson (NIWA)
<b>12:10-12:15</b>	<i>Lightning Talk:</i> Defining success of a dashboard product with user analytics - Ms Lillian Lu (ESR)
<b>12:15-12:20</b>	<i>Lightning Talk:</i> A look at how NeSI's new processors can lift researchers' productivity - Alexander Pletzer (NeSI)
<b>12:20-12:30</b>	<i>Demo:</i> Open source down the drain – using R, Leaflet and QGIS to track COVID in wastewater - Helen Morris (ESR)
<b>12:30pm</b>	Lunch Break
<b>Data: Management, Visualisation and Manipulation [Chair: Georgina Rae]</b>	

<b>1:30-1:50</b>	Bringing Order to the Chaos—Improving the Reliability of a Python Library for Data Ingestion - Dr Lukas Trombach (UoA)
<b>1:50-2:10</b>	Show me the data! Large-scale interactive data visualisation with Xarray - Maxime Rio (NeSI/NiWA)
<b>2:10-2:20</b>	<i>Demo</i> : Research Management and Digital Repository Solutions with Symplectic Elements and Figshare - Dr Anthony Dona (Digital Science)
<b>2:20-2:40</b>	Introducing opendata.fit: a FAIR data analysis and publication platform for the web - Mr James Wilmot (Australian Characterisation Commons at Scale, UNSW Sydney)
<b>2:40-2:55</b>	Break
<b>Tools and Applications [Chair: Aleksandra Pawlik]</b>	
<b>2:55-3:15</b>	Weather forecasting in the cloud - early experience with cloud HPC - Wolfgang Hayek (NIWA)
<b>3:15-3:35</b>	A semi-automated HPC deployed system to create national flood maps - Ms Hisako Shiona (NIWA)
<b>3:35-3:55</b>	Scaling NWP workloads on AWS to achieve your research goals - Timothy Brown (AWS)
<b>3:55-4:00</b>	<i>Lightning Talk</i> : Establishing an Automated Device Verification Process for Lumi Drug Scan™ - Mrs Janet Stacey (ESR)
<b>4:00-4:20</b>	From Untitled1 to CRAN: The Why and How of Publishing My First R Package - Jie Kang (Beef and Lamb New Zealand)
<b>4:20-4:40</b>	Extendable projection of social contact matrices - Dr. Nicholas Tierney
<b>4:40-4:50</b>	<i>Demo</i> : Offloading work to a remote high performance computer using Globus and funcX - Dr. Chris Scott (NeSI)
<b>4:50pm</b>	Closing remarks
<b>5:10pm</b>	Conference Ends