



# ANNUAL CONFERENCE 2025

**LEARNING FROM THE PAST  
SHAPING THE FUTURE**



## Conference Handbook



**24–27 November 2025**

University of Auckland • Tāmaki Makaurau Auckland



Welcome to the GSNZ Annual Conference 2025  
– Learning from the Past, Shaping the Future

## Tēnā tātou katoa,

We would like to welcome you to the 2025 Geoscience Society of New Zealand conference in Tāmaki Makaurau Auckland. With our theme, “*Learning from the Past, Shaping the Future*”, we look forward to showcasing a wide range of geoscience from the fundamental to addressing the big societal challenges that Geoscience can contribute to.

I orea te tuatara ka puta ki waho - A tuatara prodded with a stick will come out (of its hole) i.e. a problem is solved by continuing to find solutions.

Running from 24th-27th November on the Owen G Glenn Business School on campus at Waipapa Taumata Rau – The University of Auckland, the conference will include oral and poster sessions, pre-conference workshops and field trips.

Whaowhia te kete mātauranga - Fill the basket of knowledge.

Social functions will include an icebreaker event, gala dinner and less formal opportunities to engage.

Nāu te rourou, nāku te rourou ka ora ai te iwi - With my food basket and yours (i.e. working together) the people will thrive.

Affordable university accommodation will be available for attendees in the heart of the city. The wonderful EarthFest initiative will continue into a 3rd year in conjunction with this conference.

The local organising committee looks forward to seeing you all in Tāmaki Makaurau Auckland in November.

**Michael Rowe and Jennifer Eccles**, Conference Co-Convenors

**Sam McColl**, President, Geoscience Society of New Zealand

### LOCAL ORGANISING COMMITTEE

**Aiden Milner**, Auckland Council  
**Alexander Gold**, University of Auckland  
**Ayrton Hamilton**, University of Auckland  
**Florence Canal**, Auckland Council  
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**Martin Brook**, University of Auckland  
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**Victoria Miller**, GNS Science, Te Pū Ao

### EARTHFEST

**Jenny Stein**, Massey University  
**Joa Paredes Marino**, Auckland University  
**Aidan Milner**, Auckland City Council  
**Xuemei Tang**, GNS Science, Te Pū Ao  
**Ilmars Gravis**, Geoconservation Trust Aotearoa Pacific  
**Annalise Hall**, University of Auckland

### Conference Organisers



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## **Sponsors and Exhibitors**

The conference organising committee acknowledges and thanks the following sponsors and exhibitors for their generous support and involvement in this conference. Their support has contributed towards our being able to provide a comprehensive programme of quality content and excellent value for all participants.

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## Plenary Speakers

### Sian France

#### *Hydrogeology as a driver of better project outcomes*

Understanding how the ground has behaved in the past, and how it will behave in the future is a key component of good engineering design. There is a growing appreciation for the role of groundwater in engineering, but are we doing enough? How can we better respond to the compounding challenges ahead: the scale and complexity of projects, emerging contaminants of concern, climate change, balancing cost and risk, and all whilst doing more with (and for) less. Examples from large infrastructure projects will be used to highlight the role of hydrogeology, some reflections on the emerging challenges and how industry and the wider geoscience community might work closer to drive better project outcomes.



### Biography

Sian France is a Technical Director in Hydrogeology at Beca, with more than 20 years of experience in hydrogeology. Sian has worked on a varying range of projects where the understanding of interactions between ground, groundwater and man-made structures is fundamental to good design, construction and environmental outcomes. Sian is passionate about the pragmatic use of analysis and modelling to help project teams understand the ground conditions and support decision making.

Sian was the site hydrogeologist for the Waterview Connection tunnels, more recently she has provided groundwater support for the Central Interceptor project, has led the development of groundwater supplies in the Bay of Plenty region, provided expert evidence to support clients through mediation of construction disputes, and is currently the Investigation Lead for the Waitematā Harbour Connections investment case for assessment of a second harbour crossing.

## Plenary Speakers

### Dan Hikuroa

#### *Being a Good Ancestor*

Being a Good Ancestor is a deeply rooted concept in te ao Māori that emphasizes intergenerational responsibility, environmental guardianship, and spiritual connection to the natural world. In te ao Māori, humans are not separate from nature but part of it, bound by whakapapa to everything, and are guided by the fundamental, intertwined concepts of tika (truth, justice), pono (honesty, validity), and aroha (love, compassion). Together, they represent a relational, holistic understanding of the world, where one acts with truthfulness, integrity, and love towards others and the natural environment, fostering responsible and respectful relationships.

Whakapapa links people to the land, ancestors, and future generations. Being a good ancestor means making decisions today that honour these connections and protect the mauri (life force) of the taiao for those yet to come. This includes understanding ancestral stories and cultural patterns that inform how we relate to nature. Taiao refers to the natural environment—land, water, sky, flora, fauna—and the interconnected systems that sustain life. Kaitiakitanga is the practice of guardianship, rooted in tikanga and mātauranga Māori. It involves understanding and caring for the land, waterways, and ecosystems not just for personal benefit, but for communal and spiritual health and wellbeing. This ethic supports sustainable living and resilience in the face of climate change, environmental degradation and resource use. In this talk I will explore how being a good ancestor has informed my geoscience practice and invite you to consider how it might inform yours.

#### Biography

Dan Hikuroa (Ngāti Maniapoto, Waikato-Tainui, Ngaati Whanaunga, Pākehā) is a father, surfer and gardener. He is Associate Professor in Māori Studies, University of Auckland, UNESCO New Zealand Commissioner for Culture and world expert on weaving indigenous knowledge and science to realise the dreams and solve the challenges of the communities he works with. Formerly on the AGU Council, he is still a member of Ngā Aru Whetū, Te Pūtahi o Pūtaiao and Te Ao Mārama, Research Centres at Waipapa Taumata Rau - University of Auckland.



## Plenary Speakers

### Simon Upton

*The importance of earth sciences to managing our environment*

#### Biography

Simon Upton was sworn in as Parliamentary Commissioner for the Environment for a five-year term on 16 October 2017.

Mr Upton is a Fellow of the Royal Society of New Zealand and a Rhodes Scholar, with degrees in English literature, music and law from the University of Auckland, and an MLitt in political philosophy from Oxford University. He was sworn in as a member of the Privy Council in 1999.

A Member of Parliament between 1981 and 2000, Mr Upton held a variety of ministerial portfolios including environment, research, biosecurity, health and state services between 1990 and 1999.

After leaving Parliament, Mr Upton moved to Paris to chair the Round Table on Sustainable Development at the Organisation for Economic Co-operation and Development (OECD). In 2005, he returned to New Zealand to pursue a number of private sector roles while continuing to chair the Round Table.

In April 2010 he returned to the OECD full time as Environmental Director, a post he held for seven years until returning to take up the role of Parliamentary Commissioner for the Environment.



# Conference Programme

Monday 24 November 2025		
13.00 – 17.00	<b>Pre-conference Workshop: Shaping the Future of Aotearoa New Zealand's Involvement in Global Scientific Drilling Programs (GeoDiscoveryNZ &amp; ANZIC)</b>	Case Room 3
16.30 – 19.00	Registration Desk Open	Level 0, Exhibition Foyer
17.30 – 19.00	<b>Icebreaker Reception</b> ( <i>rsvp required</i> ) <i>1 drink voucher provided, additional can be purchased via eftpos</i>	
19.00 – 21.00	<b>Early-Career Catch-Up</b> ( <i>rsvp required</i> )	Old Government House

Tuesday 25 November 2025			
08.00 – 17.30	Registration Desk Open	Level 0, Exhibition Foyer	
08.45 – 09.30	Opening Ceremony	098 Lecture Theatre	
09.30 – 10.00	Plenary Talk - <b>Simon Upton</b> , Parliamentary Commissioner for the Environment <i>The importance of earth sciences to managing our environment</i>  <i>Kindly sponsored by Earth Sciences New Zealand</i>		
10.00 – 10.30	<b>Morning Tea</b>	Level 0, Exhibition Foyer	
	098 Lecture Theatre	073 /OGGB4 Room	092 /OGGB3 Room
10.30 – 12.00	<b>1A Active Tectonics and Earthquakes of Aotearoa New Zealand</b> <i>Chairs: James Muirhead, University of Auckland; Andy Nicol, University of Canterbury; Jade Humphrey, University of Canterbury</i>	<b>1B Geoscience communication, education and outreach, going on around the motu and beyond</b> <i>Chairs: Jenny Stein, GSNZ; Ilmars Gravis, Geoconservation.org</i>  <i>Kindly sponsored by Natural Hazards Commission Toka Tū Ake</i>	<b>1C Exploring the Frontiers of Marine Geosciences: Processes, Hazards, and Resources</b> <i>Chairs: Marta Ribó, Auckland University of Technology; Sally Watson, National Institute of Water &amp; Atmospheric Research</i>
10.30 – 10.45	Observations from 20 Years of Seismic Data in Aotearoa New Zealand <b>Codee-Leigh Williams, Victoria University of Wellington*</b>	Teaching volcanic crisis management and communication through authentic role-play: Celebrating 13 years of the Auckland Volcanic Field Eruption Simulation Exercise <b>Jan Lindsay, Waipapa Taumata Rau / University of Auckland</b>	Seafloor disturbance impacts on organic carbon storage in New Zealand's shelf sediments <b>Ines Bartl, University of Auckland</b>

## Conference Programme (Tuesday continued)

<b>10.45 – 11.00</b>	Developing a 3D depth model and 3D rate model of Aotearoa New Zealand's upper-plate earthquakes <b>Chris Rollins, Earth Sciences NZ</b>	From Lava to Learning: Designing a Human-Centred Educational Game for Volcanic Hazards in Aotearoa New Zealand <b>Kieron Wall, University of Canterbury*</b>	Multiple canyon-sources of organic carbon in the 2016 Kaikōura event bed <b>Scott Nodder, Earth Sciences NZ</b>
<b>11.00 – 11.15</b>	A descriptive catalogue of earthquakes in Aotearoa New Zealand from historical written sources, 1840 to 1870 <b>James Gurney, University of Canterbury*</b>	DEVORA Outreach: Connecting Science and Society to Strengthen Auckland's Volcanic Readiness <b>Annahlise Hall, The University of Auckland*</b>	Multi-resolution 3D insights into a Pegasus Canyon-hosted submarine landslide, Aotearoa, New Zealand <b>Susi Woelz, Earth Sciences NZ</b>
<b>11.15 – 11.30</b>	A Fiordland Deep-learning Earthquake Catalogue: Deep-dive in its construction and observations <b>Cédric De Meyer, Victoria University of Wellington*</b>	Assessing the public reception of the new Bay of Plenty tsunami evacuation maps <b>Kieran Miller, Emergency Management Bay of Plenty*</b>	Early Results on Topographic Amplification in Submarine Canyons: Insights from OBS Deployment in the MAWACAAP Project (SO310) <b>Christof Mueller, GNS Science</b>
<b>11.30 – 11.45</b>	Insights on the Kinematic Rupture Properties of the 2016 Mw 7.9 Kaikōura Earthquake <b>Kiran Kumar Thingbaijam, Earth Sciences NZ</b>	Earthquake and tsunami risk communication with culturally and linguistically diverse communities in New Zealand <b>Sajan Neupane, Massey University*</b>	From seismic signal to coastal impact: ESNZ's tsunami science response in action <b>Emma Taylor, Earth Sciences NZ</b>
<b>11.45 – 12.00</b>	A Decade On: Reassessment of Kaikōura Earthquake Coseismic Deformation via InSAR <b>Hassan Aleem, Victoria University of Wellington*</b>	Illustrating uncertainty in natural hazard science advice: sharing Aotearoa New Zealand public survey results <b>Danielle Charlton, Earth Sciences NZ</b>	Transoceanic Tsunami Impact and Simulation in New Zealand from the 2025 Kamchatka Mw 8.8 Earthquake <b>Aditya Gusman, Earth Sciences NZ</b>

\* Student Presenter



## Conference Programme (Tuesday continued)

12.00 – 13.30		Lunch & SIG Meetings		Level 0, Exhibition Foyer
12.30 – 13.30	<p><i>Case Room 1</i>  <b>Paleontology SIG Meeting</b></p>	<p><i>Case Room 2</i>  <b>Early Career Researcher (ECR) SIG Meeting</b></p>	<p><i>Case Room 4</i>  <b>Progressing the Seismology SIG Meeting</b></p>	
	<i>098 Lecture Theatre</i>	<i>073 /OGGB4 Room</i>	<i>092 /OGGB3 Room</i>	
13.30 – 14.45	<p><b>2A Active Tectonics and Earthquakes of Aotearoa New Zealand</b>  <i>Chairs: James Muirhead, University of Auckland; Andy Nicol, University of Canterbury; Jade Humphrey, University of Canterbury</i></p>	<p><b>2B Geoscience communication, education and outreach, going on around the motu and beyond</b>  <i>Chairs: Jenny Stein, GSNZ; Ilmars Gravis, Geoconservation.org</i></p>	<p><b>2C Volcanic processes shaping Aotearoa's landscape</b>  <i>Chair: Gerd Siefeld, University of Auckland</i></p>	
13.30 – 13.45	<p>From source to impacts: Advances in real-time analysis of NZ's big quakes through the RCET programme  <b>Anna Kaiser, Earth Sciences NZ</b></p>	<p>New Zealand heritage stones. Geoconservation for Earth Sciences outreach  <b>Ilmars Gravis, Geoconservation Trust Aotearoa Pacific</b></p>	<p>The timing, nature and impacts of New Zealand's supereruptions  <b>Simon Barker, Victoria University of Wellington</b></p>	
13.45 – 14.00	<p>Evaluating Rupture Characteristics of the Potential Tsunamigenic Earthquakes in the Southwest Pacific Using Regional Array Seismology  <b>Amin A. Naeini, University of Auckland*</b></p>	<p>The UC Earth Science Garden: Bringing the field to the classroom  <b>Kate Pedley, University of Canterbury</b></p>	<p>Exposure of different ethnicities to volcanic ashfall in Aotearoa New Zealand  <b>Leighton Watson, University of Canterbury</b></p>	
14.00 – 14.15	<p>The National Scale Probabilistic Coseismic Displacement Hazard Model for Aotearoa New Zealand  <b>Jack McGrath, University of Canterbury</b></p>	<p>Using seismic reflection data analysis to add relevance to undergraduate research projects  <b>Andrew Gorman, University of Otago</b></p>	<p>Shallow magma intrusion processes in the Auckland Volcanic Field  <b>Bruce W Hayward, Geomarine Research</b></p>	
14.15 – 14.30	<p>Evaluating the New Zealand National Seismic Hazard Model 2022 with fragile geologic features  <b>Mark Stirling, University of Otago</b></p>	<p>Strategic Discussion and Q&amp;A</p>	<p>Magmatic evolution of Whakaari volcano: Insights from marine cores  <b>Kieran JM Prowse, Victoria University of Wellington*</b></p>	
14.30 – 14.45	<p>Fault growth Models from historical earthquakes and active faults in New Zealand  <b>Andy Nicol, University of Canterbury</b></p>		<p>Speleothems as Archives of Volcanic Eruptions: A High-Resolution Record from Mt Taranaki  <b>Nathan Collins, University of Auckland*</b></p>	
14.45 – 15.00	<b>(Stretch/Toilet &amp; Movement Break)</b>			

\* Student Presenter

# Conference Programme (Tuesday continued)

	098 Lecture Theatre	073 /OGGB4 Room	092 /OGGB3 Room
15.00 – 16.00	<b>3A Active Tectonics and Earthquakes of Aotearoa New Zealand</b> <i>Chairs: James Muirhead, University of Auckland; Andy Nicol, University of Canterbury; Jade Humphrey, University of Canterbury</i>	<b>3B Geoscience communication, education and outreach, going on around the motu and beyond</b> <i>Chairs: Jenny Stein, GSNZ; Ilmars Gravis, Geoconservation.org</i>	<b>3C Exploring the Frontiers of Marine Geosciences: Processes, Hazards, and Resources</b> <i>Chairs: Marta Ribó, Auckland University of Technology; Sally Watson, National Institute of Water &amp; Atmospheric Research</i>
15.00 – 15.15	Crustal Structure and Plate Interface Geometry along the Hikurangi Subduction Zone <b>Dan Bassett, Earth Sciences NZ</b>	Exploring Science Identity and Sense of Place through Extra-Curricular Educational Activities in Favelas in Rio de Janeiro, Brazil <b>Lais Camargo Novaes, University of Canterbury*</b>	M8.8 Kamchatka tsunami response ushers in the next generation of Time-Dependent Tsunami Early Warning (TiDeTEW) <b>Bill Fry, Earth Sciences NZ</b>
15.15 – 15.30	Seismicity within the Creeping and Locked Zones in the Southern Hikurangi Margin <b>Martha Savage, Victoria University of Wellington</b>	Strengthening Science Identity and Interdisciplinary STEM Engagement: The Scientists in Schools Initiative at the University of Canterbury <b>Amilea Sork, University of Canterbury</b>	Low felt intensity of earthquakes in the footwall of the Vanuatu subduction zone, New Caledonia, South Pacific <b>Shao-Jinn Chin, Victoria University of Wellington</b>
15.30 – 15.45	South Island Seismology at the Speed of Light Experiment (SISSLE) — Characterizing the Alpine Fault at Haast, New Zealand <b>Meghan Miller, Australian National University</b>	Whakarūamoko – Active Earth: A geoscience journey in community learning <b>Michele D’Ath-Woodd, Seismomentum Limited</b>	Breaking the shallow-water speed limit – a large-scale experimental interrogation of tsunamigenic PDCs <b>Gert Lube, Massey University</b>
15.45 – 16.00	Synchronous and asynchronous ambient seismic noise tomography of the South Island, New Zealand, using a novel broadband array along the Alpine Fault <b>Jack-Andrew Smith, University of Edinburgh*</b>	EarthFest – Festival of Earth Science – What is it? What’s the goal? What’s next? <b>Jenny Stein, Geoscience Society of New Zealand</b>	Discussion and Q&A
16.00 – 17.30	<b>Poster Session/ Afternoon Tea</b> <i>Drinks available to purchase via eftpos</i>		Level 1, Atrium
19.00 – 21.00	<b>Tuesday Casual Meet-up</b>		Old Government House

\* Student Presenter

# Conference Programme

Wednesday 26 November 2025			
08.00 – 18.00	Registration Desk Open		Level 0, Exhibition Foyer
09.00 – 09.25	Plenary Talk - <b>Daniel Hikuroa</b> , University of Auckland <i>Being a Good Ancestor</i>		098 Lecture Theatre
09.25 – 09.30	<b>Move rooms</b>		
	098 Lecture Theatre	073 /OGGB4 Room	092 /OGGB3 Room
09.30 – 10.00	<b>4A Our changing landscapes: Surface process dynamics, evolution, and hazards</b> <i>Chairs: Sam McColl, GNS Science; Jon Tunncliffe, University of Auckland</i>	<b>4B Ka mua ka muri: mātauranga māori and its application in the geosciences</b> <i>Chairs: Dan Hikuroa, University of Auckland; Kate Mauriohooho, Massey University; Sylvia Tapuke, University of Auckland</i>	<b>4C Distributed Volcanism: Processes, Products, and Hazards</b> <i>Chairs: Kate Mauriohooho, Massey University; Simon Barker, Victoria University of Wellington; Jan Lindsay, University of Auckland</i>
09.30 – 09.45	Kinematic Evolution of Slow-Moving Landslides in Northern California: Impacts of Precipitation and Seismic Activity (2021-2024) <b>Danielle Lindsay, UC Berkeley*</b>	<b>KEYNOTE:</b> Ka hangaia ngā mātauranga hou <b>Kate Mauriohooho, Massey University</b>	New volcano hazard research supporting emergency planning in Auckland: Seventeen years of DEVORA <b>Graham Leonard, Earth Sciences NZ</b>
09.45 – 10.00	Landslide Dams around the World: A new book to prompt research <b>Dean Jackson, Earth Sciences NZ</b>	Integrating Mātauranga Māori and Geoscience: Exploring Māori Placenames as Indicators of Volcanic Risk in Auckland's Landscape <b>Sylvia Tapuke, University of Auckland</b>	Shattered Records: Fuel-Coolant-Interaction amplified ash fracturing in the 2022 Hunga eruption <b>Rachael Baxter, University of Otago*</b>
10.00 – 10.30	<b>Morning Tea</b>		Level 0, Exhibition Foyer
	098 Lecture Theatre	073 /OGGB4 Room	092 /OGGB3 Room
10.30 – 12.00	<b>5A Our changing landscapes: Surface process dynamics, evolution, and hazards</b> <i>Chairs: Sam McColl, GNS Science; Jon Tunncliffe, University of Auckland</i>   Kindly sponsored by Earth Sciences NZ	<b>5B Ka mua ka muri: mātauranga māori and its application in the geosciences</b> <i>Chairs: Dan Hikuroa, University of Auckland; Kate Mauriohooho, Massey University; Sylvia Tapuke, University of Auckland</i>	<b>5C Earth, Energy, and Innovation: Geoscience for the Energy Transition</b> <i>Chairs: Andrew La Croix, University of Waikato; Ludmila Adam, University of Auckland</i>

\* Student Presenter

## Conference Programme (Wednesday continued)

<b>10.30 – 10.45</b>	Evaluating the effect of the 1942 Wairarapa earthquake sequence on landslides using aerial imagery <b>Danni Ellen Gubb, University of Canterbury*</b>	Tāmaki herenga waka, Tāmaki herenga tangata, Tāmaki makaurau – what stories sit behind names? <b>Robbie Paora, Waipapa Taumata Rau-university of Auckland</b>	<b>KEYNOTE:</b> Geoenergy at the Core: Geoscience Driving the Global Energy Transition <b>Alan Bischoff, University of Turku</b>
<b>10.45 – 11.00</b>	Geophysical Characterisation of Landslides across Aotearoa <b>Richard Kellett, Earth Sciences NZ</b>	Working with Mana Whenua: Field protocols for research in the Auckland Volcanic Field. <b>Kelvin Tapuke, Devora</b>	Applications and Future Potential of Borehole Image Logs in New Zealand's Subsurface Characterisation <b>Angela Griffin, Earth Sciences NZ</b>
<b>11.00 – 11.15</b>	High-resolution pseudo-3D seismic reflection imaging of the sedimentary infill of Lake Whakatipu. <b>Georgina Dempster, University of Otago*</b>	Collaborative learnings from the Volcanic Lakes of Ahi Tupua <b>AJ Marshall, Te Herenga Waka - Victoria University of Wellington*</b>	Geoscience in the pursuit of energy resources – reflections <b>Mac Beggs, Retired</b>
<b>11.15 – 11.30</b>	Fifty Years of Shore Platform Erosion Monitoring at Kaikōura Peninsula, South Island, Aotearoa-New Zealand <b>Wayne Stephenson, University of Otago</b>	Heed the taniwha <b>Dan Hikuroa, Waipapa Taumata Rau-university of Auckland</b>	H <sub>2</sub> -Brine-Rock Interactions: Laboratory Insights for Geostorage at Ahuroa <b>Ludmila Adam, University of Auckland</b>
<b>11.30 – 11.45</b>	A Legacy of Submarine Slope Failure in Seismic Reflection Data Along the Active Hikurangi Margin, Aotearoa New Zealand <b>Sally Watson, Earth Sciences NZ/UOA</b>	Te Mauri Ihoiho: A culturally based framework for climate change resilience <b>Destiny Wharewera, Ao Hurihuri Iwi Collective</b>	Sustainable extractive metallurgy for the refining of critical minerals in Aotearoa <b>Morgan Lowther, Pihau—Robinson Research Institute, Victoria University of Wellington</b>
<b>11.45 – 12.00</b>	Assessing the tsunami hazard from sub-aerial landslides on Whakaari / White Island <b>William Power, Earth Sciences NZ</b>	Ngā Ara Pungapunga (Pumice Pathways): Partnering with tangata whenua to develop a new low-carbon pumice economic sector for Aotearoa-NZ <b>Anke Zernack, Massey University</b>	Uncovering New Low Temperature Geothermal Occurrences in Auckland and North Waikato as Part of Decarbonising Covered Crops with Geoheat <b>Paul Viskovic, Earth Science NZ</b>
<b>12.00 – 13.25</b>	<b>Lunch &amp; SIG Meetings</b>		Level 0, Exhibition Foyer

## Conference Programme (Wednesday continued)

12.30 – 13.25	Case Room 1 <b>GeOID SIG Meet &amp; Greet</b>	Case Room 2 <b>GeoDiscovery / ANZIC SIG Meeting</b>	Case Room 3 <b>GeoNet Programme Update</b>	Case Room 4 <b>LAVA NZ (Volcanology) SIG Meeting</b>
	<i>098 Lecture Theatre</i>	<i>073 /OGGB4 Room</i>	<i>092 /OGGB3 Room</i>	
13.30 – 15.30	<b>6A Active Tectonics and Earthquakes of Aotearoa New Zealand</b> <i>Chairs: James Muirhead, University of Auckland; Andy Nicol, University of Canterbury; Jade Humphrey, University of Canterbury</i>	<b>6B The Aotearoa New Zealand geoscience data landscape: management, computing and dissemination solutions</b> <i>Chairs: Elisabetta D'Anastasio, GNS Science; Jonathan Hanson, GNS Science; Mark Rattenbury, GNS Science</i>	<b>6C Distributed Volcanism: Processes, Products, and Hazards</b> <i>Chairs: Kate Mauriohooho, Massey University; Simon Barker, Victoria University of Wellington; Jan Lindsay, University of Auckland</i>	
13.30 – 13.45	Paleoseismology of the Hope Fault Conway Section and Evidence for Along-System Earthquake Clustering <b>Jade Humphrey, University of Canterbury - Te Whare Wānanga O Waitaha</b>	<b>KEYNOTE:</b> Data is a taonga - Governance of Māori data in Crown Research Institutes <b>Linley Jesson, Bioeconomy Sciences Institute</b>	Application of Anisotropy Magnetic Susceptibility (AMS) to base surge deposits of the Auckland Volcanic Field: Implications for depositional processes and runout distance <b>Gemechu Teferi, University of Auckland*</b>	
13.45 – 14.00	Laboratory and thermo-mechanical modelling constraints on the seismic-aseismic transition depth, Wellington region, New Zealand <b>Carolyn Boulton, Te Herenga Waka Victoria University of Wellington</b>		It's a Gas!: Volcanic Emissions and Fluxes in the Auckland Volcanic Field, Aotearoa New Zealand <b>Elaine Smid, University of Auckland*</b>	
14.00 – 14.15	Laboratory constraints on greywacke fault zone elasticity throughout the seismic cycle <b>Lars Hansen, Te Herenga Waka Victoria University of Wellington</b>	Availing geoscience with national and international data standards <b>Mark Rattenbury, Earth Sciences NZ</b>	Modelling fire hazard from lava flows in the Auckland Volcanic Field <b>Aisling Kerr, University of Auckland*</b>	
14.15 – 14.30	Toward a New Zealand Community Velocity Model <b>Hannu Seebeck, Earth Sciences NZ</b>	The NZP&M Geodata Catalogue. Three years on: Growth, Pipelines, Lessons Learnt and the Future <b>Giovanni Pradel, MBIE</b>	Complex building damage at lava flow margins: Insights from the 2021 Tajogaite eruption, La Palma <b>Janine Kruppner, University of Waikato</b>	

\* Student Presenter

## Conference Programme (Wednesday continued)

<p><b>14.30 – 14.45</b></p>	<p>Local earthquake tomography of the Wairakei-Tauhara region <b>Ryota Shibuya, Te Herenga Waka - Victoria University of Wellington*</b></p>	<p><b>KEYNOTE:</b> Unlocking New Zealand’s Landscape: National-Scale Access to Airborne LiDAR <b>Jack Williams, Toitū Te Whenua Land Information NZ</b></p>	<p>Geochronology and geochemical evolution of magma systems in the Taupō-Maroa area between two supereruptions: Whakamaru and Ōruanui <b>Kate Mauriohooho, Massey University</b></p>
<p><b>14.45 – 15.00</b></p>	<p>Geophysical imaging of the Paeroa Fault: Insights from a dense nodal seismic array <b>Brook Keats, Earth Science NZ</b></p>	<p>Do multi-GNSS solutions impact the results of the final product? Moving from a GPS only, to multi-GNSS solution. <b>Lars Hansen, Land Information NZ</b></p>	<p>Timing and eruptive characteristics of the ~349 ka Whakamaru supereruption sequence constrained by detailed analysis of tephra sites around New Zealand <b>Anna Miller, Victoria University of Wellington*</b></p>
<p><b>15.00 – 16.30</b></p>	<p><b>Poster Session/ Afternoon Tea</b> <i>Drinks available to purchase via eftpos</i></p>		<p>Level 1, Atrium</p>
<p><b>16.30 – 17.30</b></p>	<p><b>GSNZ AGM</b></p>		<p>092 /OGGB3 Room</p>
<p><b>18.30</b></p>	<p><b>Dinner Transport:</b> Buses Depart from outside the Sir Owen G Glenn Building on Grafton Road</p>		
<p><b>19.00 – late</b></p>	<p><b>'Rock the Boat' Dinner &amp; Awards</b> <i>(rsvp required)</i> <i>1 drink voucher provided, additional can be purchased via eftpos</i></p>		<p>NZ Royal Yacht Squadron</p>

\* Student Presenter

# Conference Programme

Thursday 27 November 2025			
08.00 – 18.00	Registration Desk Open		Level 0, Exhibition Foyer
09.00 – 09.25	Plenary Talk - <b>Sian France</b> , BECA <i>Hydrogeology as a driver of better project outcomes</i>		098 Lecture Theatre
09.25 – 09.30	<b>Move rooms</b>		
	098 Lecture Theatre	073 /OGGB4 Room	092 /OGGB3 Room
09.30 – 10.30	<b>7A Understanding tectonic and magmatic processes</b> <i>Chair: Jennifer Eccles, University of Auckland</i>	<b>7B The Aotearoa New Zealand geoscience data landscape: management, computing and dissemination solutions</b> <i>Chairs: Elisabetta D'Anastasio, GNS Science; Jonathan Hanson, GNS Science; Mark Rattenbury, GNS Science</i>	<b>7C Tāmaki Makaurau Auckland – a Geoscience Laboratory</b> <i>Chairs: Kasper Van Wijk, University of Auckland; James Muirhead, University of Auckland</i>
09.30 – 09.45	Something's Got to Give: Highly heterogeneous deformation in the Ross Ice Shelf is associated with composite sutured zones <b>Ruari Macfarlane, University of Otago*</b>	Evaluating the Reliability of Post-Volcanic Eruption Building Damage Data Collection Methods <b>Niamh Stratton, University of Canterbury*</b>	Probing the depths of Auckland's Volcanic Field: An integrated geophysical investigation into the intraplate volcanism of Tāmaki Makaurau <b>Kasper Van Wijk, University of Auckland</b>
09.45 – 10.00	Seasonal to Multiannual Creep Rate Changes Along the Hayward, Rodgers Creek, and Maacama Faults, California <b>Danielle Lindsay, UC Berkeley*</b>	An Inside Look at the GeoNet Products and Services Architecture <b>Joshua Groom, Earth Sciences NZ</b>	Probing the deep roots of the Auckland Volcanic Field <b>Geoffrey Abers, Cornell University</b>
10.00 – 10.15	Can data from IODP Expedition 405 to the Japan Trench explain a correlation between low flexural rigidity and slip during the 2011 Mw9.1 Tōhoku-oki earthquake? <b>Ron Hackney, Australia New Zealand International Scientific Drilling Consortium</b>	GeoNet Seismic Benchmark Dataset for AI-Driven Seismology in New Zealand <b>Pasan Herath, Earth Sciences NZ</b>	Origin of the Auckland Volcanic Field: Insights from Finite-Frequency Body-Wave Tomography <b>Junguo Lin, Southern University of Science and Technology*</b>
10.15 – 10.30	Full waveform inversion reveals high-resolution crustal structure within the Southern Hikurangi Margin frontal wedge: Implications for physical conditions along the shallow megathrust <b>Brook Tozer, Earth Sciences NZ</b>	Agentic Workflows: Shaping the Future of Scientific Software with AI <b>Florent Aden-antoniow, Earth Sciences NZ</b>	Mantle deformation in northwestern North Island, New Zealand <b>Jade Robinson, Victoria University of Wellington Te Herenga Waka*</b>

\* Student Presenter

## Conference Programme (Thursday continued)

10.30 – 11.00		Morning Tea		Level 0, Exhibition Foyer
	<i>098 Lecture Theatre</i>	<i>073 /OGGB4 Room</i>	<i>092 /OGGB3 Room</i>	
<b>11.00 – 12.30</b>	<b>8A Understanding tectonic and magmatic processes</b> <i>Chair: Jennifer Eccles, University of Auckland</i>	<b>8B(i) Deciphering the environmental past, present and future of Aotearoa</b> <i>Chairs: Paul Augustinus, University of Auckland; Barry O'Connor, University of Auckland; Laura McDonald, University of Auckland</i>	<b>8C(i) Tāmaki Makaurau Auckland – a Geoscience Laboratory</b> <i>Chairs: Kasper Van Wijk, University of Auckland; James Muirhead, University of Auckland</i>	
<b>11.00 – 11.15</b>	Does pre-ascent magma storage influence eruption style? <b>Phil Shane, University of Auckland</b>	Holocene landscape evolution and phases of accelerated sedimentation and dune building in the lower Wairarapa Valley, North Island, New Zealand. <b>Sam McColl, Geoscience Society of New Zealand</b>	Imaging the Auckland Volcanic Field using Ambient Noise Tomography <b>Hugo Chevallier, University of Auckland*</b>	
<b>11.15 – 11.30</b>	Beyond the façade of monotony: Geochemical signatures of a heterogeneous magmatic mush reservoir <b>Marlena Prentice, University of Waikato</b>	Vegetation change over the Mid-Pleistocene Transition in Aotearoa-New Zealand: insights from a Hikurangi Subduction Margin record <b>Laura McDonald, The University of Auckland*</b>	Imaging the Auckland Volcanic Field upper lithosphere with local body-wave tomography <b>Meegan Soulsby, University of Auckland*</b>	
<b>11.30 – 11.45</b>	Thermo-Rheological Feedback in Dikes: Insights from Analogue Experiments and Numerical Modelling <b>Javiera Ruz - Ginouves, University of Otago*</b>	Miocene to Holocene paleogeography of the Auckland–Northland region <b>Dominic Strogon, Earth Sciences NZ</b>	The 1891 M~6.2 Port Waikato earthquake and other past seismicity in Auckland/ Northland, and geodetic measurements of strain rates <b>Chris Rollins, Earth Sciences NZ</b>	
<b>11.45 – 12.00</b>	Tectonic and magmatic controls on multi-crater vent formation from 3D mapping of the Modgunn vent, offshore mid-Norway <b>Luisa Rollwage, University of Canterbury*</b>	<b>8B(ii) Paleontology for the People</b> <i>Chairs: Chris Hollis, Victoria University of Wellington; Bruce Hayward, Geomarine Research</i> Is New Zealand paleontology a dying field? <b>Christopher Hollis, Victoria University of Wellington</b>	A history of faulting in Tāmaki Makaurau-Auckland from the Miocene to Present Day <b>James Muirhead, University of Auckland</b>	

\* Student Presenter



## Conference Programme (Thursday continued)

12.00 – 12.15	Exceptional normal fault offsets in the aftermath of the 232 CE Taupō eruption <b>Madisen Snowden, Earth Sciences NZ</b>	Nō hea tō whenua – Where is your land from? <b>Christopher Hollis, Victoria University of Wellington</b>	<b>8C(ii) Geoscience and Societal Resilience</b> <i>Chair: Jennifer Eccles, University of Auckland</i>
12.15 – 12.30	The Volcano WakaLab at Teneikoula Volcano, Solomon Islands <b>C Ian Schipper, Victoria University of Wellington</b>	Bryozoan time travel to the tropical Lower Devonian Reefton Group <b>Catherine Reid, University of Canterbury</b>	<b>KEYNOTE:</b> Science Advisory Panels: Enhancing Decision-Making in New Zealand's Emergency Management System <b>Ashleigh Fromont, National Emergency Management Agency</b>
12.30 – 12.45	Formation of Pele's hair by stretching of bubbly magma <b>Janina Gillies, University of Canterbury</b>	Effective and ineffective strategies in science-society interactions for palaeontology: experience of last 15 years in Russia and its potential application to New Zealand <b>Alexey Ippolitov, Victoria University of Wellington*</b>	Preserving Historical Seismograms from Taupō Unrest In 1964–65 And 1983–1986 <b>Paul Viskovic, Earth Science NZ</b>
12.45 – 13.45	<b>Lunch</b>		
	<i>098 Lecture Theatre</i>	<i>073 /OGGB4 Room</i>	<i>092 /OGGB3 Room</i>
13.45 – 14.45	<b>9A Geoscience advances with synchrotron radiation</b> <i>Chair: Michael Rowe, University of Auckland</i>	<b>9B Volcanic Lakes: Dynamics, Hazards, and Community Resilience</b> <i>Chairs: Agnes Mazot, GNS Science; AJ Marshall, Victoria University of Wellington; Cynthia Werner, US Geological Survey Contractor; Bruce Christenson</i>	<b>9C Geoscience and Societal Resilience</b> <i>Chairs: Jennifer Eccles, University of Auckland; Jennifer Andrews, Earth Science NZ; Victoria Miller, Earth Science NZ</i>
13.45 – 14.00	Illuminating Earth: How Synchrotron Light can Answer Geoscience Questions <b>Andrew Langendam, ANSTO Australian Synchrotron</b>	Hydrothermal mineralisation prior to gas-driven eruptions: constraints on mineral seal formation via flow-through experiments <b>Geoff Kilgour, Earth Sciences NZ</b>	Modeling Seismic Sensor Network Capability with the Minimum Detectable Earthquake Magnitude <b>Sam Taylor-Offord, Earth Sciences NZ</b>
14.00 – 14.15	Using the XAS and MEX beamlines at the Australian Synchrotron to analyse laterite ores undergoing critical metal extraction using Fe(II) mediated recrystallisation and reductive dissolution. <b>Maximilian Mann, Monash University</b>	Investigating Hydrothermal Sealing Mechanisms at Mt. Ruapehu Using So2 Emission Rates <b>Agnes Mazot, Earth Sciences NZ</b>	Multiple approaches toward earthquake shaking prediction: application to a Wellington building <b>Caroline Holden, SeismoCity Ltd</b>

\* Student Presenter

## Conference Programme (Thursday continued)

14.15 – 14.30	Investigating a potential trace element biosignature of silica-microbe interactions in hot springs through synchrotron-based Gallium XANES <b>Michael Rowe, University of Auckland</b>	<b>KEYNOTE:</b> “I’m constantly aware that I live next to a super-volcano”: Shifts in risk perception across a year of caldera unrest and storm events in Taupō <b>Mary Anne Clive, Earth Sciences NZ</b>	Space Weather Vulnerabilities in the North Island, Aotearoa New Zealand <b>Kristin Pratscher, Earth Sciences NZ</b>
14.30 – 14.45	Textural variations in pyroclasts of the 232 CE Taupō eruption – a three-dimensional approach <b>Shannen Mills, Massey University</b>	Volcanic Lakes in Te Arawa: An Iwi Perspective <b>Sarah Wharekura, Te Arawa Lakes Trust</b>	The Occurrence and Morphology of Naturally Occurring Respirable Mordenite Mineral Fibres in New Zealand <b>Ayrton Hamilton, The University of Auckland</b>
14.45 – 15.15	Closing Ceremony		098 Lecture Theatre



## Field Trips

### Friday 28 November 2025

08.00 – 17.00	<b>Epithermal mineral deposits of the Coromandel Volcanic Zone</b> Leader: Ayrton Hamilton (University of Auckland)
07.30 – 17.30	<b>Fossil highlights of the Port Waikato Region</b> Leader: Nathan Collins (University of Auckland)
08.00 – 13.00	<b>Geological Tour of Motukorea/Brown's Island by Sea Kayak</b> Leader: Michael Rowe (University of Auckland)
08.30 – 16.00	<b>Rangitoto Revealed!: Insights into Volcanic Hazard and Risk in the Auckland Volcanic Field</b> Leaders: Elaine Smid, Annahlise Hall, Meegan Soulsby (University of Auckland)



# Posters

## TUESDAY 25 NOVEMBER

### Session: Active Tectonics and Earthquakes of Aotearoa New Zealand

<b>P1.01</b>	Danielle Best*	Insights into the source faults of the Canterbury Earthquake Sequence from LiDAR differencing and elastic dislocation models
<b>P1.02</b>	Solen Chanony*	Radiated seismic energy estimation tool for Aotearoa and the south-west Pacific
<b>P1.03</b>	Luke Chowdhury*	A new hope: Enhancing paleoseismic records of the Hope Fault using fault-contact lakes.
<b>P1.04</b>	Cédric De Meyer*	The 2025 seismicity along the Puysegur Subduction Zone: What it can tell us about subduction processes and interplay with crustal faults
<b>P1.05</b>	Alexander Gold*	Histories of faulting and the twin threats of seismic and volcanic hazards around Taupō Volcano
<b>P1.06</b>	Wiebke Heise	Magnetotelluric Measurements in the Marlborough Fault Zone
<b>P1.07</b>	Caroline Holden	Rupture models of past large Alpine fault (New Zealand) earthquakes to inform imminent seismic hazard.
<b>P1.08</b>	Carmen Juarez Garfias*	Long Period Ground Motion Simulations of the Alpine Fault in the North Island using Ambient Seismic Noise Towards Earthquake Early Warning
<b>P1.09</b>	Wuyu Liao	SEISYNC: An AI-driven Modular Seismic Monitoring System for Synchronous Earthquake Early Warning and Post-Event Cataloging
<b>P1.10</b>	Yiming Ma	Detection of Short-Term Slow Slip Events in New Zealand Using Decade-Long GNSS Time Series
<b>P1.11</b>	Carlos Montalvo Lara*	Illuminating the deep structure of the Marlborough Fault System using microseismicity
<b>P1.13</b>	Matt Parker*	Can ridge rents in Arthur's Pass National Park record past large earthquakes?
<b>P1.14</b>	Mojtaba Rajabi	Mapping neotectonic stress pattern of New Zealand
<b>P1.15</b>	Jerome Salichon	GeoNet Earthquake Monitoring Evolution 2025: Modernizing Event Detection and Catalogue Workflows
<b>P1.16</b>	Kiran Kumar Thingbaijam	Aotearoa New Zealand Earthquake Rupture Models Database
<b>P1.17</b>	John Townend	Seismological Analysis of Contemporary and Future Alpine Fault Seismicity Using the Southern Alps Long Skinny Array (SALSA)
<b>P1.18</b>	Alexandra Travers*	Spatial–Temporal Rupture Patterns of Reverse Faults: A Case Study of the Dunstan Fault, Otago, New Zealand
<b>P1.19</b>	Codee-Leigh Williams*	Long-Duration Enhanced Earthquake Analysis to Illuminate Faulting and Earthquake Interactions Across the Cook Strait.

# Posters

## TUESDAY 25 NOVEMBER

### Session: Distributed Volcanism: Processes, Products, and Hazards

<b>P1.20</b>	Simon Barker	Recent explosive eruptive history of Tūhua volcano, Bay of Plenty: Insights from marine cores
<b>P1.21</b>	Rachael Baxter*	The role of magma-flux on eruptive behaviour during the formation of the monogenetic Ubehebe volcanic centre, Death Valley, California.
<b>P1.22</b>	Paul Bobin*	Inside pyroclastic density currents – first results of high-resolution measurements of their internal structure
<b>P1.23</b>	Brenda Ferguson*	Origins and timescales of tephra emplacement generating the Mangatawai Tephra, Tongariro National Park
<b>P1.24</b>	Joseph Fleming*	Spatial Variations in and Sedimentological Characteristics of the Taupō Ignimbrite
<b>P1.25</b>	Samuel Clouston*	Numeric modelling insights into the cause of shallow tremor at Ruapehu
<b>P1.26</b>	Oliver Emerson McLeod	Sub-surface geological mapping of the eastern Alexandra Volcanic Group, Waikato
<b>P1.27</b>	Tomomi Okada	Earthquake swarm in 2025 and seismic velocity structure in the Abu monogenic volcanic group, southwestern Japan
<b>P1.28</b>	Javiera Ruz - Ginouves*	Locked in Stone: Magma Flow Directions and Country Rock Heating Around the Jagged Rocks Dikes, Hopi Buttes Volcanic Field
<b>P1.29</b>	Melody Whitehead	Magma Depletion: An alternative hypothesis for vent distribution in volcanic fields

### Session: Ka mua ka muri: mātauranga māori and its application in the geosciences

<b>P1.30</b>	Melody Whitehead	Should statistical tools be used to harness the forecasting potential of environmental tohu at Ruapehu, and the Central Volcanic Plateau?
<b>P1.31</b>	Iris Ronald*	Integrating remote sensing with iwi-guided monitoring of Mount Ruapehu
<b>P1.32</b>	Natalia Seliutina*	How tough is pounamu? Results of fracture-toughness measurements on New Zealand's nephrite jade

## Posters

### TUESDAY 25 NOVEMBER

#### Session: Earth, Energy, and Innovation: Geoscience for the Energy Transition

<b>P1.33</b>	Curt Knott*	CO2 capture and storage in Aotearoa, New Zealand: Are geothermal reservoirs rocks capable of carbon mineralization?
<b>P1.34</b>	Ted Spinks*	Facies control on the distribution of organics and reactive minerals in potential hydrogen geostorage sedimentary reservoirs
<b>P1.35</b>	Romain Sylvain	Revisiting the Tectono-Sedimentary Evolution of the Tarata Thrust Zone (Taranaki Basin, Aotearoa New Zealand): Implications for Future H <sub>2</sub> and CO <sub>2</sub> Geostorage
<b>P1.36</b>	Emmanuel Turinimana*	Predictability of soil CO <sub>2</sub> degassing from soil temperature measurements in geothermal settings

#### Session: Exploring the Frontiers of Marine Geosciences: Processes, Hazards, and Resources

<b>P1.37</b>	Charles Cox*	Coastal sediment dynamics and coastal evolution in a changing climate
<b>P1.38</b>	Sam Davidson	An overview of marine imaging/sampling capabilities for geoscientific research
<b>P1.39</b>	Constanza Flores*	Integrated pedestrian-car agent-based models for tsunami evacuation
<b>P1.40</b>	Catherine Ginnane	Novel radiocarbon measurements of Patea / Doubtful Sound and Tamatea / Dusky Sound particulate organic carbon reveal knowledge gaps in lateral carbon transport and sequestration
<b>P1.41</b>	Archie Hann*	Source to Sink Sediment Analysis in the Upper Whakaraupō   Lyttelton Harbour
<b>P1.42</b>	Marta Ribó	Gravity flow processes during submarine canyon flushing events
<b>P1.43</b>	Marta Ribó	Sediment resuspension during anchoring operations
<b>P1.44</b>	Hannah St. Louis*	Post-eruptive Ocean Response at Hunga Volcano, Tonga
<b>P1.45</b>	Sally Watson	Comparing the impacts of ship anchoring on sediment structure and composition in Wellington Harbour/Te Whanganui ā Tara

#### Session: General Geoscience

<b>P1.46</b>	Hoa Nguyen Natalia Abrego	Environmental Chemistry Laboratory
<b>P1.47</b>	Brendan Hall	Costal & Hydrology Laboratory
<b>P1.48</b>	David Wackrow	ENV Particle Analysis Laboratory
<b>P1.49</b>	David Wackrow	Sedimentology lab

## Posters

### TUESDAY 25 NOVEMBER

#### Session: Geoscience communication, education and outreach, going on around the motu and beyond

<b>P1.50</b>	Michele D'Ath-Woodd	Rockology Psychology, Taranaki Regional EarthFest: Budget of none.
<b>P1.51</b>	Rachel Lawson	Whose Role is it Anyway? A Survey on Public Perceptions of Emergency Management during Geohazards Response
<b>P1.52</b>	Keeley Grantham*	Te Tukohu Ngāwha – Reflecting on five years of scientific growth steeped in Mātauranga Māori

#### Session: Our changing landscapes: Surface process dynamics, evolution, and hazards

<b>P1.53</b>	James Ardo*	More than water: Large-scale experimental facility for debris flow research
<b>P1.54</b>	Vincent Gil	As clear as mud: PIV Measurements of velocity profiles in small-scale debris flow experiments.
<b>P1.55</b>	Craig Miller	The threat of volcanic tsunami from near shore volcanoes in the Bay of Plenty, New Zealand
<b>P1.56</b>	Arthur Wickham*	Under Pressure: Investigating Pore Pressure Dynamics in Sheared Natural Sediment Mixtures

#### Session: Volcanic processes shaping Aotearoa's landscape

<b>P1.57</b>	Cam Asher	Say "Cheese!": An Upgrade to the GeoNet Volcano and Landslide Webcam Monitoring Capabilities
<b>P1.58</b>	Nathan Collins*	Controls on Travertine and Tufa Deposition at Mt Taranaki, New Zealand
<b>P1.59</b>	Taylor Dackers*	Genetically and temporally grouping Holocene lavas and tephras at Mt. Ruapehu
<b>P1.60</b>	Graham Leonard	The geology of the Taupō Volcanic Zone at 1:130 000 scale
<b>P1.61</b>	Leighton Watson	Using seismic signals to track moving flows: a case study of the 2007 Ruapehu lahar
<b>P1.62</b>	Cindy Werner	Hydrothermal signatures in springs and gases at Taranaki Volcano – Opportunities for geochemical monitoring

## Posters

### WEDNESDAY 26 NOVEMBER

#### Session: Deciphering the environmental past, present and future of Aotearoa and Beyond

<b>P2.01</b>	Paul Augustinus	Auckland Maar Lakes as Recorders of Late Quaternary Paleoclimate and Tectonic Events
<b>P2.02</b>	Kari Bassett	Fitted-clast textures in lacustrine fan delta mouth bar settings in the Cretaceous Paparoa Formation, Greymouth Basin
<b>P2.03</b>	Courtney Durham*	Characterising Paleosols Within Tephra Sequences in the Taupō Volcanic Zone
<b>P2.04</b>	Gavin Holden*	Synchronous antiphase rainfall patterns in the tropical South Pacific during the Last Glacial Period: Evidence from the speleothem paleoclimate record.
<b>P2.05</b>	Andrew La Croix	Sedimentary Evolution of the Rangitāiki Plains in Aotearoa New Zealand: Implications for Coastal Processes and Management
<b>P2.06</b>	Anna Miller*	Eruptive characteristics, timing, and environmental setting of the ~1 Ma Kidnappers supereruption constrained by high-resolution tephrochronology and palynology
<b>P2.07</b>	Courtney Simmiss*	Reconstructing Holocene Environmental Change and Geological Development at Sandy Point, Avon-Heathcote Estuary, Christchurch, New Zealand.
<b>P2.08</b>	Jemma Te Whaiti*	How Benthic Foraminifera Relate to Tidal Elevation changes in Whakaraupō (Lyttelton Harbour)

#### Session: General Geoscience

<b>P2.09</b>	Andres Arcila	Earth Sciences Processing Laboratory
<b>P2.10</b>	Jayden Li	Scanning Electron Microscopy Mischaracterization
<b>P2.11</b>	Harpreet Singh	XRF Fluorescence Spectroscopy
<b>P2.12</b>	Glenn Thompson	Electro Probe Microanalyser

#### Session: Geoscience advances with synchrotron radiation

<b>P2.13</b>	Shannen Mills	Palisade bubbles – Heterogeneous nucleation or something else?
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## Posters

### WEDNESDAY 26 NOVEMBER

#### Session: Geoscience and Societal Resilience

<b>P2.14</b>	Kasuni Erandika Adikari Adikari Appuhamilage*	Advancing Earthquake Resilience: A Multi-Modal Approach to Analysing Human Behaviour
<b>P2.15</b>	Jen Andrews	Improving the Performance of the FinDer Algorithm for Rapid Characterisation of Offshore New Zealand Ruptures
<b>P2.16</b>	Thanuri Eranthi	Improving Ground Motion Prediction in New Zealand Earthquakes with Bayesian Hierarchical Modelling
<b>P2.17</b>	Richard Melchert	Enhancing GeoNet Earthquake Solution Quality with Automated Tools
<b>P2.18</b>	Victoria Miller	Promoting resilience through next- and end-user engagement on volcanic ash forecast products
<b>P2.19</b>	Sajan Neupane*	Earthquakes and Citizen Science: Understanding human behaviour through GeoNet Felt Detailed Reports
<b>P2.20</b>	Danuka Ravishan*	Toward Lightweight On-site Earthquake Early Warning: Evaluating the Mamba State-Space Model
<b>P2.21</b>	Mohammadali Rezaei*	A Geostatistically Enhanced Random Forest Model for High-Accuracy Seismic Property Estimation
<b>P2.22</b>	Kianoush Rostami*	Understanding the Human Side of Earthquake Early Warning: Exploring Key Response Factors
<b>P2.23</b>	Emeline Wavelet*	Designing local Time-Dependent Forecast for tsunami: feedback from end users
<b>P2.24</b>	Kenny Graham	Updates on medium-term earthquake forecasting in New Zealand and beyond

#### Session: The Aotearoa New Zealand geoscience data landscape: management, computing and dissemination solutions

<b>P2.25</b>	Kenny Graham	Toward a FAIR framework for earthquake catalogues in Aotearoa, New Zealand
<b>P2.26</b>	Sam Davidson	Seabed 2030 and Advancing Ocean Mapping: Project Updates and Goals for 2026
<b>P2.27</b>	Thomas Benson	Improving GeoNet Data Useability: Current and Future Enhancements Through Collaboration with International Partners
<b>P2.28</b>	Elisabetta D'Anastasio	The Journey of GeoNet Data
<b>P2.29</b>	Elisabetta D'Anastasio	Open Data is not enough: questions on Māori Data Governance in the context of national scale research infrastructure
<b>P2.30</b>	Pasan Herath	GeoNet's Geohazard Monitoring Data in the Cloud: How to Find and Use Them?

## Posters

### WEDNESDAY 26 NOVEMBER

#### Session: Paleontology for the People

<b>P2.31</b>	Christopher Hollis	Chemical time capsules: How we can use molecular fossils as markers of environmental change
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#### Session: Tāmaki Makaurau Auckland – a Geoscience Laboratory

<b>P2.32</b>	Yazi Ali*	Characterising Cementation as a Control on Rock Strength in the East Coast Bays Formation, Auckland
<b>P2.33</b>	Jirapat Charoensawan*	Auckland Rock as Mars Analogue: Effect of Temperature and Humidity on Seismic Velocities of Sandstone and Basalt

#### Session: Volcanic Lakes: Dynamics, Hazards, and Community Resilience

<b>P2.34</b>	Peter Otway	Monitoring Ruapehu the old-fashioned way
<b>P2.35</b>	Sol Marconi*	Do visual observations reflect volcanic gas emissions at Whakaari/White Island?
<b>P2.36</b>	AJ Marshall*	Volcanic Lakes in Te Arawa: Volcanic - Environmental Monitoring

## Posters

### WEDNESDAY 26 NOVEMBER

#### Session: Understanding tectonic and magmatic processes

<b>P2.37</b>	Zoe Armstrong*	The role of coal-magma interaction in the temporal development of magmatic plumbing systems: Insights from the Ferrar Large Igneous Province
<b>P2.38</b>	Samantha Nicholson*	Observations of faulting, folding and fluid flow in Rakaia Terrane greywacke, Princess Bay, Wellington, New Zealand
<b>P2.39</b>	Shao-jinn Chin	Shear wave velocity image of an ophiolite nappe in New Caledonia and its implications for Eocene subduction initiation beneath Zealandia
<b>P2.40</b>	Shixian Dong*	Imaging Upper Mantle Structure beneath Earth's Hidden Continent of Northern Zealandia with Ambient Noise Tomography
<b>P2.41</b>	Donna Eberhart-Phillips	A model of Cretaceous subduction cessation and intraplate volcanism, based on South Zealandia 3D crustal structure
<b>P2.42</b>	Ryotaro Fujimura*	S-wave splitting analysis with Frequency Dependence in Northeastern Japan
<b>P2.43</b>	Katharine Gilchrist*	Dynamics of Heat Transfer Within Large Igneous Province Sill Complexes
<b>P2.44</b>	Janina Gillies	Evolution of highly vesicular basaltic pyroclasts during fountaining
<b>P2.45</b>	Annahlise Hall*	A New Subaerial Record of Explosive Volcanism and Associated Tsunami Deposits on Tongatapu Island, Tonga
<b>P2.46</b>	Aimee Harsant*	Co-erupted Plutonic Enclaves in Dacitic Magma at Belfond Volcano, Saint Lucia, Lesser Antilles Arc, from an Amphibole and Plagioclase Perspective
<b>P2.47</b>	Finnigan Illsley-Kemp	Attenuation imaging of the Taupō Volcanic Zone
<b>P2.48</b>	Chengxin Jiang	Probing the Wairakei-Tauhara Geothermal System, Taupō Volcanic Zone, with a dense nodal seismic array
<b>P2.49</b>	Sophy Kipkwony*	Seismotectonic Source Zones and Seismic Hazard in the Kenya Rift
<b>P2.50</b>	El Mestel	A new dense nodal seismic network at Ōkataina volcano, Aotearoa New Zealand
<b>P2.51</b>	Mark Rattenbury	Pluton Map characterisation of Aotearoa New Zealand's intrusive rocks
<b>P2.52</b>	Yirong Xu*	Quantitative mechanisms of groundwater level fluctuations under harmonic disturbance: Stress-strain evidence in a confined sand layer
<b>P2.53</b>	Shengfeng Zhang	Identification of the Precursory Scale Increase in the Earthquake Catalog of CSEP-China Testing Center

# Campus Map

## UNIVERSITY OF AUCKLAND

