Monday, 25 November 2024	
	(Pre-conference Workshops)
12.00 – 14:15	*Otago Business School G17* **Building a Framework for Earthquake Catalogues in Aotearoa New Zealand** University of Otago Ōtākou Whakaihu Waka **Leaders**: Kenny Graham, Jonathan Hanson (GNS Science) and Calum Chamberlain (VUW)
14:30 – 16.45	*Otago Business School G17* **New Zealand Community Velocity Model** University of Otago Ōtākou Whakaihu Waka **Leaders**: Sanjay Bora, Donna Eberhart-Phillips, Russ Van Dissen (GNS Science) and Brendon Bradley (University of Canterbury)
16.00 - 19.00	*ISB Link Foyer (Information Services Building)* **Registration Desk Open**
17.00 - 17.30	*Castle 2 Lecture Theatre* **Mihi Whakatau**
17:30 – 19:00	*ISB Link Foyer* **Icebreaker Reception**
19:30 - Late	*Moons Restaurant and Bar* **Early Career Catch-up**

Tuesday, 26 November 2024

08:00 – 17.30	*ISB Link Foyer* **Registration Desk Open**		
08.45 - 09.30	*Castle 2 Lecture Theatre* **Opening Ceremony**		
09.30 - 10.00	*Castle 2 Lecture Theatre* **Plenary Speaker** How I stopped catastrophising and learned to think differently about climate tipping points: Dynamics of the marine ice sheet instability on Thwaites Glacier, West Antarctica - **Christina Hulbe, University of Otago**		
10.00 - 10.30	**Morning Tea** - *ISB Link Foyer*		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
10.30 – 12.00	**1.A Ensuring Invaluable Scientific Observations are Obtained Pre- and During the Next Alpine Fault Earthquake** *Session Convenors: Phaedra Upton, Kate Clark, Sigrún Hreinsdóttir, Emily Warren-Smith, GNS Science*	**1.B Geoscience Education, Outreach and Communication** *Session Convenors: Sophie Briggs, University of Otago; Kate Pedley, University of Canterbury, Faye Nelson, University of Otago*	**1.C Underwater Geosciences** *Session Convenors: Dr Alan Orpin, NIWA; Dr Sally Watson, NIWA/University of Auckland*
10.30 - 10.45	Keynote Past, present, and future earthquakes on the Alpine Fault: what lies beneath and what lies ahead? - **John Townend, Victoria University of Wellington**	A Geoethical Vision for Aotearoa New Zealand - **Matthew William Hughes, University of Canterbury**	Cyclic Erosion and Infill of the Waitaki Canyon, Offshore Otago **- Glenn Thrasher, GNS Science**
10.45 - 11.00	Exploring Future Alpine Fault Earthquakes Using Ambient Seismic Noise Analysis - **John Townend, Victoria University of Wellington**	Redefining Geoscience through Photovoice - **Emily Pasek, Michigan State University** *(student)*	Near-bed sediment and organic carbon transport in Kaikōura Canyon and Hikurangi Channel - **Scott Nodder, NIWA Taihoro Nukurangi**
11.00 - 11.15	Enriching the Alpine Fault paleoseismic record using curved slickenlines to constrain paleo-epicenters - **Nicolas Barth, University of California, Riverside**	Maximising geoscience for societal benefit through evaluation of impact - **Victoria Miller, GNS Science**	Multi-proxy Provenance Analysis of the Pleistocene-Recent Giant Foresets Formation, Taranaki Basin, Aotearoa New Zealand - **Glenn Sharman, University of Arkansas**
11.15 - 11.30	Southern Alpine Fault segmentation and potential earthquake ruptures - **Philip Barnes, NIWA**	Advancing uncertainty communication of the scientific model- Using 'Uncertainty Doughnut' - **Annal Dhungana, Massey University** *(student)*	Overcoming the challenges in marine pollen records to create long records of past vegetation and climate - **Laura McDonald, The University of Auckland** *(student)*

11.30 - 11.45	Opportunities for integrated multi-discipline monitoring of New Zealand's Southern Alps - **Calum Chamberlain, Victoria University of Wellington**		Interactive tools for the communication of the temporal and spatial distribution of disaster literature in British Columbia, Canada - **Charlotte Milne, Institute for Resources, Environment, and Sustainability (UBC)** *(student)*	Decoding the Deep: Automated Signal Classification in OBS Data – The RUMBLE Project - **Christof Mueller, GNS Science**
11.45 - 12.00	Keynote Modelling the next Alpine Fault earthquake: Why measurements matter - **Carolyn Boulton, Te Herenga Waka Victoria University of Wellington**		Discovering 'The Secrets of Rocks' and lessons from other outreach projects in Chile - **Javiera Ruz-Ginouves, University of Otago** *(student)*	Unravelling the sediment signature of the lake tsunami: the potential of lake sediment records to reconstruct magnitude and frequency - **Katie Hughes, Victoria University of Wellington** *(student)*
12.00 - 13.30	**Lunch and SIG Meetings-** *ISB Link Foyer*			
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*	*Burns 5 Seminar Room*
12.30 - 13.25	***GeoNet Programme Update Led by: Elizabeth Abbott, Jonathan Hanson, Elisabetta D'Anastasio and the GeoNet Team, GNS Science***	***GSNZ Proposed Awards Portfolio - Feedback Session Led by Sam McColl, GSNZ President***	***Geoethics Special Interest Group Led by: Matthew Hughes, University of Canterbury***	***Natural Hazards and Resilience Platform establishment – information session Led by: Dr Graham Leonard, Natural Hazard and Risk Theme Leader, GNS Science***
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*	
13.30 - 14.45	**2.A Ensuring Invaluable Scientific Observations are Obtained Pre- and During the Next Alpine Fault Earthquake** *Session Convenors: Phaedra Upton, Kate Clark, Sigrún Hreinsdóttir, Emily Warren-Smith, GNS Science*	**2.B Geoscience Education, Outreach and Communication** *Session Convenors: Sophie Briggs, University of Otago; Kate Pedley, University of Canterbury, Faye Nelson, University of Otago*	**2.C Changing Landscapes; Surface Process Dynamics, Evolution, and Impacts** *Session Convenors: Sam McColl, GNS Science; Katie Jones, GNS Science; Kevin Norton, Victoria University of Wellington; Sean Fitzsimons, University of Otago; David Barrell, GNS Science*	
13.30 - 13.45	Complex fault traces on the northern Alpine Fault, Aotearoa New Zealand: roles of fault interactions and structural maturity in influencing earthquake ground surface rupture patterns - **James La Greca, The University of Melbourne** *(student)*	5 Minute: Volcano - Designing Educational Games about Geological Disaster Risks with and for New Zealand Classroom - **Kieron Wall, University of Canterbury** *(student)*	Scratching the surface: A catalogue of recognised human impacts across New Zealand's nearshore marine/freshwater environments - **Sam Davidson, NIWA**	
13.45 - 14.00	Determining the best core location to develop long lacustrine paleoseismic records - **Adelaine Moody, Victoria University of Wellington** *(student)*	Digital technologies coupled with practical and field experiences can enhance the ability of Geology students to practice 3D spatial skills - **Kate Pedley, University of Canterbury**	Impact of landscape evolution on the ocean circulation and glaciation: A forward modelling of basin and landscape dynamics, northern Barents Sea, Norwegian Arctic - **Amando Lasabuda, The University of Sydney**	

14.00 - 14.15	Did the most recent surface-rupturing earthquake on the Alpine Fault occur in 1717 AD? - **Sophie Newsham, University of Canterbury** *(student)*	Integrating real and virtual field experiences for geoscience education - **Virginia Toy, Johannes Gutenberg Universität-Mainz**	How accurate are benthic foraminifera as a proxy for estimating coseismic subsidence? - **Bella Partington, University of Canterbury** *(student)*
14.15 - 14.30	Sediment cascades following Alpine Fault earthquakes: observations from the past inform future research prospects - **Jamie Howarth, Victoria University of Wellington**	Mine geology experiential learning as we charge towards Net Zero: fieldtrip to 2 operating open-cast mines - **Martin Brook, University of Auckland**	Unravelling the Vertical Land Motion and Relative Sea Level Rise in Sumatra, Indonesia - **Maritsa Faridatun Nisa - University of Otago** *(student)*
14.30 - 14.45	Surface rupture, displacement, and river avulsion impacts during the next large alpine fault earthquake - **Rob Langridge, GNS Science**	Education of the next generation of geotechnical engineering and engineering geology professionals in New Zealand - **Christoph Kraus, NZGS and Beca Ltd**	Climate of the tropical South Pacific during the Last Glacial Period: Insights from the speleothem archives - **Gavin Holden, Victoria University of Wellington** *(student)*
14.45 - 15.00	**(Short Break)**		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
15.00 – 16.00	**3.A Applied Geosciences: Geotechnical, Resources and Technologies** Session Convenors: Nick Mortimer, Donna Eberhart-Phillips, GNS Science	**3.B Urban Geosciences** *Session Convenor: David Barrell, GNS Science* ***Kindly sponsored by Natural Hazards Commission Toka Tū Ake*** Natural Hazards Commission Toka Tū Ake	**3.C Changing Landscapes; Surface Process Dynamics, Evolution, and Impacts** *Session Convenors: Sam McColl, GNS Science; Katie Jones, GNS Science; Kevin Norton, Victoria University of Wellington; Sean Fitzsimons, University of Otago; David Barrell, GNS Science*
15.00 - 15.15	Mineral Resource Estimation for gold mining at Macraes Mining Area, Hyde-Macraes Shear Zone, Otago, New Zealand - **Matthew Grant, OceanaGold**	Rediscovering the Past: Unveiling the Geological Legacy of the Albert Park Volcano, Auckland City - **Steven Price, Riley Consultants Ltd**	Detecting mass movements in alpine regions using infrasound - **Leighton Watson, University of Canterbury**
15.15 - 15.30	Sustainable Remediation of Gasworks Site in Masterton, New Zealand - **Ben Keet, Geo & Hydro - K8 Ltd**	Identifying concealed structures in urban areas: Insights from Tāmaki Makaurau-Auckland, Aotearoa-New Zealand - **Jan Lindsay, University of Auckland**	Post-glacial capture of Lake Wakatipu by the Kawarau River and rapid incision of slot gorges downstream: Implications for landslide failure and outbreak floods - **John Youngson, Youngson Geoscience Consultants**
15.30 - 15.45	Carbon dioxide removal potential of New Zealand river catchments under enhanced rock weathering applications - **Sourajit Sahoo, University of Waikato** *(student)*	Avoiding fault: Two decades of surface fault rupture hazard management on the Ostler Fault, Twizel, South Canterbury - **Helen Jack, Environment Canterbury**	Evolution of the Leader River in Response to a Landslide Dam, Triggered by the 2016 Mw 7.8 Kaikōura Earthquake - **Anna McCarthy, University of Canterbury** *(student)*

15.45 - 16.00	Improving Eruption Forecasting Through Transfer Machine Learning: A Global Approach Utilizing Models Trained on 24 Volcanoes - **Alberto Ardid, University of Canterbury**	Dunedin City's Shallow Groundwater and Multi-Hazard Flood Forecasts as Sea-Levels Rise - **Simon Cox, GNS Science**	A Sand Balance Model of the Lower Rangitata River - **Justin Rogers, University of Canterbury** *(student)*
16.00 - 17.30	*ISB Link Foyer* **Poster Session and Afternoon Tea**		
18.30 – 21.00	*Toitu Otago Settlers Museum* **Night at the Museum**		

Wednesday, 27 November 2024

08.00 – 17.00	*ISB Link Foyer* **Registration Open**		
Times tbc	*Castle D Seminar Room* **Science Media Savvy Express Training**		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
09.00 – 10.30	**4.A Earthquake Science from Intraplate to Interplate** *Session Convenors: Mark Stirling, University of Otago; Ting Wang, University of Otago; Genevieve Coffey, GNS Science*	**4.B Evolution of the New Zealand Biota: In Honour of R. Ewan Fordyce** *Session Convenors: Daphne Lee, University of Otago; Daniel Thomas, University of Auckland*	**4.C Magmas and Volcanoes of Zealandia and Beyond** *Session Convenors: Marco Brenna, James White, Jie Wu, University of Otago*
09.00 - 09.15	Keynote Enhanced earthquake detection enables advancements in our understanding of earthquake physics - **Calum Chamberlain, Victoria University of Wellington**	Keynote Chimaeroids to Carcharodon: Ewan Fordyce's Contributions to Expanding the New Zealand Fossil Record of Chondrichthyans and Bony Fishes - **Michael Gottfried, Michigan State University**	Keynote The skirmish between arc and intraplate magma below Karioi – a stratigraphic perspective - **Oliver Emerson McLeod, Waikato Regional Council**
09.15 - 09.30	The southern extent of active Hikurangi subduction: insights from seismicity catalogues - **Daria Batteux, University of Canterbury** *(student)*		
09.30 - 09.45	Seismicity and moment tensors from a dense deployment spanning slow slip earthquakes near Pōrongahau, central Hikurangi margin -	Landon Series Biostratigraphy - Developments over the last few decades and Ewan Fordyce's role in shaping our understanding of Zealandia's	What happened here? Mapping and re-interpreting the volcanic rocks underlying Dunedin - **Graham Leonard, GNS Science**

	Martha Savage, Victoria University of Wellington	Oligocene Epoch - **Marcus Richards, Stay at Home Parent**	
09.45 - 10.00	Keynote Statistical insights regarding the relationship between seismicity and slow slip events in the Hikurangi Subduction Zone - **Jessica Allen, University of Otago** *(student)*	Winners and losers in the New Zealand flora since the Miocene: the effects of changing climate on vegetation in southern Zealandia - **Tammo Reichgelt, University of Connecticut**	Hot and cold storage within a long-lived crystal mush beneath the Dunedin Volcano - **Ayla Stenning, University of Otago** *(student)*
10.00 - 10.15	Recurrence Patterns of Shallow Hikurangi SSEs Change Along the Strike of the Margin and after 2016 Mw7.8 Kaikoura Earthquake - **Andrea Carolina Perez Silva, University of Otago**	Cenozoic fossil wood records of extinct and extant angiosperm tree lineages from southern Zealandia - **Mathew Vanner, University of Otago**	Conduit establishment and evolution at Taranaki Mounga - **Henry Hoult, University of Canterbury** *(student)*
10.15 - 10.30	Deep and clustered microseismicity at the peripheral edge of southern New Zealand's plate boundary: results from the Southland Otago Seismic Array (SOSA) - **Jack Williams, University of Otago**	Eocene spiny fruits and seeds from the Waihao Greensand, New Zealand - **John Conran, The University of Adelaide**	Unravelling the story of Kuwae, Vanuatu, in Stratigraphy, Bathymetry, and Geochemistry - **Sönke Stern, University of Auckland** *(student)*
10.30 - 11.00	**Morning Tea -** *ISB Link Foyer*		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
11.00 – 12.30	**5.A Earthquake Science from Intraplate to Interplate** *Session Convenors: Mark Stirling, University of Otago; Ting Wang, University of Otago; Genevieve Coffey, GNS Science*	**5.B Evolution of the New Zealand Biota: In Honour of R. Ewan Fordyce** *Session Convenors: Daphne Lee, University of Otago; Daniel Thomas, University of Auckland*	**5.C (part 1) Magmas and Volcanoes of Zealandia and Beyond** *Session Convenors: Marco Brenna, James White, Jie Wu, University of Otago*
11.00 - 11.15	One tune, many tempos: Faults trade off slip in time and space to accommodate relative plate motions - **Russ Van Dissen, GNS Science**	100 years of spore-pollen biostratigraphy in New Zealand: progress and possibilities - **Ian Raine, GNS Science**	Measuring a volcano's breath: Young volcanic plume emissions reveal elevated magmatic degassing amidst a long heating cycle of a hyper-acidic volcanic crater lake (Mt. Ruapehu) - **Marco Rebecchi, Te Herenga Waka-Victoria University of Wellington** *(student)*
11.15 - 11.30	Progress towards untangling earthquake sources in the Central Hikurangi Subduction Zone: Holocene marine terraces between Clifton and Waimārama - **Nicola Litchfield, GNS Science**	New insights into the fossil record of sea pens (Octocorallia) based on a new find from the mid-Cretaceous of New Zealand - **Alexey Ippolitov, Victoria University of Wellington** *(student)*	Linking hydrothermal alteration to rock mechanics: comparative analysis of andesitic volcanoes in Aotearoa - New Zealand - **Maia Kidd, Massey University** *(student)*

11.30 - 11.45	Late Quaternary activity of the Pisa Fault, Otago - **Mark Stirling, University of Otago**	Size trends in Zealandian Mesozoic Brachiopods - **Donald MacFarlan, Independent**	The Volcanic Lakes of Te Ahi Tupua (Central Taupō Volcanic Zone, Aotearoa New Zealand) - **AJ Marshall, Te Herenga Waka-Victoria University of Wellington** *(student)*
			5.C (part 2) Understanding Diverse Volcanic Processes *Session Convenors: Eleanor Mestel, Finnigan Illsley-Kemp, Simon Barker, Stephen Piva, Te Herenga Waka Victoria University of Wellington; Sigrún Hreinsdóttir, GNS Science Te Pū Ao*
11.45 - 12.00	Structural controls on the geometries and displacements of Kaikōura Earthquake fault ruptures - **Andy Nicol, University of Canterbury**	Fossil arthropods from Zealandia reveal a complex ecological and biogeographic history - **Daphne Lee, University of Otago**	Recent inflation episodes beneath Taupō Volcano - **Sigrún Hreinsdóttir, GNS Science**
12.00 - 12.15	How greywacke faults heal: Results from hydrothermal friction experiments - **Carolyn Boulton, Te Herenga Waka Victoria University of Wellington**	Potential new turtle species from the Neogene of North Canterbury, New Zealand - **Morne Wium, Canterbury University** *(student)*	Fibre optic sensing of earthquakes at Ruapehu - **Leighton Watson, University of Canterbury**
12.15 - 12.30	Geometries and slip rates of recently discovered active faults in Taranaki - **Matt Parker, University of Canterbury**	The University of Otago Geology Museum fossil database - **Jeffrey Robinson, University of Otago**	Monitoring Volcanic Degassing at Ruapehu - **Agnes Mazot, GNS Science**
12.30 - 14.00	**Lunch and SIG Meetings -** *ISB Link Foyer*		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
13.00 - 13.55	***Kickstarting a Seismology Special Interest Group*** ***Led by: Matt Gerstenberger, Kiran Kumar Thingbaijam, GNS Science, Jack Williams University of Otago***	***GeOID SIG Meeting*** ***Led by: Jenny Stein, Massey University***	***Friends of Pleistocene Special Interest Group*** ***Led by: David Barrell, GNS Science***
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
14.00 – 15.30	**6.A Earthquake Science from Intraplate to Interplate** *Session Convenors: Mark Stirling, University of Otago; Ting Wang, University of Otago; Genevieve Coffey, GNS Science*	**6.B Evolution of the New Zealand Biota: In Honour of R. Ewan Fordyce** *Session Convenors: Daphne Lee, University of Otago; Daniel Thomas, University of Auckland*	**6.C Understanding Diverse Volcanic Processes** *Session Convenors: Eleanor Mestel, Finnigan Illsley-Kemp, Simon Barker, Stephen Piva, Te Herenga Waka Victoria University of Wellington; Sigrún Hreinsdóttir, GNS Science Te Pū Ao*

14.00 - 14.15	Geophysical imaging of the Paeroa Fault: Insights from a dense nodal seismic array - **Brook Keats, GNS Science, Wairakei Research Centre**	A bite of evolution: elucidating cetacean evolutionary history through their teeth - **Carolina Loch, University of Otago**	Cracks and Thermal Flow: Thermo-structural Analysis at Maunga Kakaramea, Waiotapu Geothermal Field - **Gerd Sielfeld, University of Auckland**
14.15 - 14.30	An integrated 3D "interseismic" GNSS velocity field, updated strain-rate maps, and geodetic slip-deficit-rate models for Aotearoa New Zealand, plus some questions - **Chris Rollins, GNS Science**	The oldest New Zealand sea lion - **Felix Georg Marx, Museum of New Zealand Te Papa Tongarewa**	A Summary and Interpretation of The Recent Potential Field and Carbon Dioxide Gas Flux Data of Rangitoto Volcano, Auckland Volcanic Field - **Alutsyah Luthfian, The University of Auckland** *(student)*
14.30 - 14.45	Cataloguing and promoting the use of paper records in the national earthquake information database - **Paul Viskovic, GNS Science**	A New Diving Pliocene Ardenna Shearwater (Aves: Procellariidae) from New Zealand - **Alan Tennyson, Museum of New Zealand Te Papa Tongarewa**	Investigating conditions for phreatic volcanic eruptions with comparison to Whakaari volcano, New Zealand - **Sophie Pearson-Grant, GNS Science**
14.45 - 15.00	New Zealand National Seismic Hazard Model Revision 2022: Hazard changes with respect to NZ NSHM 2010 - **Sanjay Bora, GNS Science**	Ancient mitogenomes and morphometrics reveal a new species of extinct large insular shelduck from Rēkohu Chatham Islands - **Nic Rawlence, University of Otago**	Better shape up! The impact of irregular shape in numerical modelling of volcanic bombs - **Amilea Sork, University of Canterbury** *(student)*
15.00 - 15.15	The 2022 New Zealand National Seismic Hazard Model applied in the Wellington Basin - **Anna Kaiser, GNS Science**	Kyeburn Moa Footprints and the Maniototo Conglomerate - **Kane Fleury, Tūhura Otago Museum**	Insights into rapidly transitioning eruptions at Ambrym volcano (Vanuatu, SW Pacific) through melt inclusions from the 1913 Hospital Tuff - **Kristen Lewis, University of Canterbury** *(student)*
15.15 - 15.30	Empirical validation of physics-based ground motion modelling in Wellington Basin: Insights on Basin Amplification - **Duo Li, GNS Science**	Fossil footprints from the rohe of Ngāti Whātua o Kaipara are educational assets - **Daniel Thomas, University of Auckland**	Magmatic processes and the obsidians of Tūhua (Mayor Island) - **Frankie Haywood, University of Bristol** *(student)*
15.30 - 17.00	**Poster Session and Afternoon Tea -** *ISB Link Foyer*		
17.00 - 18.00	**GSNZ AGM -** *Castle 2 Lecture Theatre*		
19.00 - late	*Business School Atrium, University of Otago Ōtākou Whakaihu Waka* **"It's Always Sunny in Dunedin" Awards Dinner**		

Thursday, 28 November 2024

08.00 – 15.00	*ISB Link Foyer* **Registration Desk Open**		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
09.00 – 10.30	**7.A Preparation for the Next Big Quake Rapid Response Science, Cascading Hazard & Scenario Development** *Session Convenors: Anna Kaiser, GNS Science; Caroline Orchiston, University of Otago; Elena Manea, GNS Science* ***Kindly sponsored by GNS Science Te Pū Ao*** 	**7.B Future-Proofing Energy and Minerals: Geoscience in the Low-Emissions Era** *Session Convenors: David Dempsey, University of Canterbury; Ludmila Adam, University of Auckland; Jess Hillman, NIWA*	**7.C Great Southern Land (and Ocean): Research from Antarctica and the Southern Ocean** *Session Convenors: Greer Gilmer, GNS Science; Meghan Duffy, University of Otago*
09.00 - 09.15	Exercise Rū Whenua: Building an Alpine Fault earthquake scenario for a national-scale emergency management exercise - **Tom Robinson, University of Canterbury**	Keynote A minerals strategy for New Zealand - **Richard Garlick, MBIE**	Keynote Structure and mechanics of the McMurdo Ice Shelf: news from the K062 field camp - **David Prior, University of Otago**
09.15 - 09.30	Developing The GNS Incident Management System in Preparation for Rū Whenua and The Next Large Earthquake - **Gerry Blair, GNS Science**	New Zealand's mineral resources for the low carbon emissions future - **Tony Christie, GNS Science**	
09.30 - 09.45	Spatio-Temporal Variability in Disaster Exposure: Insights from the Alpine Fault Earthquake Scenario (Rū Whenua) - **Mat Darling, University of Canterbury** *(student)*	Keynote Resourcing the future: changing the concept of ore - **Julie Rowland, University of Auckland**	Estimating Marine Ice Thickness Beneath the Amery Ice Shelf from Airborne Radio-Echo Sounding - **Lijuan Wang, Tongji University** *(student)*
09.45 - 10.00	From Science to Operation within the Rapid Characterisation of Earthquake and Tsunami (RCET) Program - **Jen Andrews, GNS Science**		Comparing 2D and 3D models of Antarctic ice shelf rift fronts - **Martin Forbes, Otago Polytechnic**

10.00 - 10.15	Improving Earthquake Forecasting in New Zealand: The Development and Implementation of the Hybrid Forecast Tool (HFT) - **Kenny Graham, GNS Science**	Brine-reactivity for studies of injecting CO2 and H2 in New Zealand Rocks – **Ludmila Adam, University of Auckland**	Glacial-interglacial uranium isotope systematics of coccolithophore from the Southern Ocean: New insights for ocean temperature, pH, carbonate ion concentration and redox reconstructions - **Marie Hennequin, The University of Otago** *(student)*
10.15 - 10.30	Operational Template-Matching for Rapid Aftershock Analysis and Source Characterisation - **Emily Warren-Smith, GNS Science**	Understanding geophysical properties of fluids for monitoring a CCS project at the Kapuni field - **Steve Morice, Todd Energy**	Pleistocene paleoenvironmental reconstructions from the Pacific Sector of the Antarctic Circumpolar Current: Diatom and sediment geochemistry proxies from IODP 383 Site U1539 - **Meghan Duffy, University of Otago** *(student)*
10.30 - 11.00	**Morning Tea -** *ISB Link Foyer*		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
11.00 – 12.30	**8.A Preparation for the Next Big Quake Rapid Response Science, Cascading Hazard & Scenario Development** *Session Convenors: Anna Kaiser, GNS Science; Caroline Orchiston, University of Otago; Elena Manea, GNS Science*	**8.B Future-Proofing Energy and Minerals: Geoscience in the Low-Emissions Era** *Session Convenors: David Dempsey, University of Canterbury; Ludmila Adam, University of Auckland; Jess Hillman, NIWA*	**8.C Great Southern Land (and Ocean): Research from Antarctica and the Southern Ocean** *Session Convenors: Greer Gilmer, GNS Science; Meghan Duffy, University of Otago*
11.00 - 11.15	Waikato Region Hikurangi Subduction Zone Consequence Planning - **Whitney Mills, Waikato Regional Council**	Geological assessment of underground hydrogen storage prospectivity, Taranaki Basin: a multi-criteria decision-making approach - **Dominic Paul Strogen, GNS Science**	Magnetic fabric analysis of laboratory deposited sediments to investigate paleo Antarctic Bottom Water velocity - **Natalie-Jane Reid, University of Otago** *(student)*
11.15 - 11.30	Comprehensive physics-based multi-hazard and multi-risk modelling for Aotearoa New Zealand: a progress report - **Bill Fry, Te Pū Ao**	Correlation or causation? Influences of topography, heat sources, and geology on regional-scale geothermal fluid flow in the Taupō Volcanic Zone, New Zealand - **Sophie Pearson-Grant & Lucy Carson, GNS Science**	Linking oceanographic-driven sediment and organic carbon flux to geologic records in Antarctic submarine canyons - **Jess Hillman, NIWA**
11.30 - 11.45	A National Probabilistic Coseismic Displacement Model for Aotearoa New Zealand - **Andy Howell & Jack McGrath, University of Canterbury**	Achieving Carbon Neutrality in Geothermal Energy: A Model for High-Emission Industries - **Eylem Kaya, University of Auckland**	**9.C Mountains to Sea Research in Fiordland** *Session Convenor: Greer Gilmer, GNS Science* Over the misty mountains – Fiordland's climatic development during the Holocene - **Julian Eschenroeder, University of Otago** (student)
	9.A Tsunamis in the Southwest Pacific – Monitoring, Evaluation, Response and Mitigation	**9.B Regional and General Geology: In Honour of Jane Forsyth** *Session Convenor: Nick Mortimer, GNS Science*	

	Session Convenors: William Power, Craig Miller, Jonathan Hanson, Jean Roger, GNS Science		
11.45 - 12.00	24/7 Monitoring and Rapid Response to Tsunamigenic events in Aotearoa - **Heather J Rawcliffe, GNS Science**	Keynote A sub-Quaternary geological map, Te Waipounamu South Island and Rakiura Stewart Island **- Mark Rattenbury, GNS Science**	Carbon Loss from Earthquake-Induced Landslides in Fiordland **- Charles Cox, University of Otago** (student)
12.00 - 12.15	Constraining Tsunamigenic Earthquake Sources: Integrating Array Seismological Methods with the W-Phase Solution for Improved Far-Field Tsunami Warning - **Amin A. Naeini, University of Auckland** *(student)* **& Bill Fry, GNS Science**	On the origin of tremolite in New Zealand nephrite (including Pounamu)- **Mike Palin, University of Otago**	Assessing Carbon Storage Capacities in Fiordland Fjords: Insights from high-resolution seismic imaging - **Ellen Unland, University of Otago** *(student)*
12.15 - 12.30	Earthquake cycle models of the Hikurangi-Kermadec and Tonga-Vanuatu subduction zones - **Yi-wun Mika Liao, GNS Science/University of Canterbury** *(student)*	The sedimentology, stratigraphy and geochemistry of the Waipara Greensand- **Ted Spinks, University of Canterbury** *(student)*	The secrets of sequestration: Assessing the modern carbon stocks in Tamatea / Dusky Sound - **Luke Whibley, University of Otago** (student)
12.30-13.30	**Lunch -** *ISB Link Foyer*		
	Castle 2 Lecture Theatre	*Castle 1 Lecture Theatre*	*Burns 1 Lecture Theatre*
13.30 - 14.30	**10.A Tsunamis in the Southwest Pacific – Monitoring, Evaluation, Response and Mitigation** *Session Convenors: William Power, Craig Miller, Jonathan Hanson, Jean Roger, GNS Science*	**10.B Regional and General Geology: In Honour of Jane Forsyth** *Session Convenor: Nick Mortimer, GNS Science*	**10.C Mountains to Sea Research in Fiordland** *Session Convenor: Greer Gilmer, GNS Science*
13.30 - 13.45	Five years of tsunami monitoring with the New Zealand DART network: detections, issues & perspectives - **Jean Roger, GNS Science**	New Zealand's earliest geological maps and the argument they generated between Hochstetter and Heaphy - **Bruce W. Hayward, Geomarine Research**	Mountains to sea in 3D: Fiordland plutonic block is key to the southern South Island New Zealand Plate Boundary - **Donna Eberhart-Phillips, GNS Science**
13.45 - 14.00	Database Development for Volcanic Tsunami Threat Levels **- Aditya Gusman, GNS Science**	Deformation history of the Waimea-Flaxmore Fault System in Nelson-Tasman Bay (New Zealand): implications of alternative restorations - **Francesca Ghisetti, Terrageologica**	Fiordland saltmarshes: sediments, salinity, and vegetation - **Peter Johnson, Manaaki Whenua Landcare Research**
14.00 - 14.15	The National Tsunami Hazard Model - 2021 Update and Example Applications – **William Power, GNS Science**	Structural reinterpretation of the McKee field using a thrust-fault growth and linkage model – **Lawrence Grant-Woolley, Todd Energy**	The impact of land dynamics on the terrestrial carbon cycle in Fiordland - **Elizabeth Keller, GNS Science**
14.15 - 14.30	Tsunami Hazard from Afar: Implications for Aotearoa New Zealand - **Aisling O'Kane, University of Canterbury**	Geology and origins of Te Riu-a-Māui / Zealandia – **Nick Mortimer, GNS Science**	Where does the carbon go? Reconciling atmospheric observations, surface observations, and lateral transport of carbon in Fiordland - **Jocelyn Turnbull, GNS Science**

14.30 - 15.00	*Castle 2 Lecture Theatre* **Closing Ceremony** **Student Presentation Awards** **NZJGG Journal Update by Fei He at the Royal Society** **Photo Competition Awards presented by Tourism New Zealand**

Friday, 29 November 2024 **(Field Trips)**	
Starts Thursday at 15.30. **Ends** Friday at 16.00	**Explore the Stories of New Zealand's First UNESCO Global Geopark – Two Day Field Trip** Thursday 28th and Friday 29th November **Leader**: Sasha Morriss (Waitaki Whitestone Geopark)
09.00 – 16.30	**A Geological Tour through Dunedin's Landscape and Scenery** Friday 29th November **Leaders:** David Barrell & Nick Mortimer (GNS Science)
09.30 – 16.30	**Akatore Fault Earthquake Geology: Otago's Most Active Fault** Friday 29th November **Leader:** Mark Stirling (University of Otago)
08.00 – 15.00	**Dunedin's Volcanic Geology** Friday 29th November **Leaders:** Ayla Stenning, Marco Brenna, Rachael Baxter, Dante Frean, James White (University of Otago)
09.00 – 15.00	**Geology Along Te Aka Ōtakou/Otago Harbour Cycleway** Friday 29th November **Leaders:** Greer Gilmer (GNS Science) & Sophie Briggs (University of Otago)