

Japan-Taiwan-New Zealand Seismic Hazard Assessment Meeting 2026

Day 1 | Tuesday 27 October 2026

Time	Title	Speaker
8:00 AM – 9:00 AM	Welcome, Registration, and Poster Setup	
9:00 AM – 9:10 AM	Opening Remarks	
	National seismic hazard and risk models <i>Chair: Anna Kaiser and Kuo-Fong Ma</i>	
9:10 AM – 9:25 AM	Towards the Introduction of Epistemic Uncertainties into the National Seismic Hazard Maps for Japan	Nobuyuki Morikawa
9:25 AM – 9:40 AM	GMCM for the 2030 New Zealand NSHM	Brendon Bradley
9:40 AM – 9:55 AM	Probabilistic Seismic Hazard Assessment for Taiwan: Updates and Improvements in TEM PSHA2025	Chung-Han Chan
9:55 AM – 10:10 AM	New Zealand NSHM 2028/2030 progress update	Matt Gerstenberger
10:10 AM – 10:25 AM	Discussion	
10:25 AM – 11:25 AM	Morning tea and poster session	
	Earthquake Catalogues <i>Chair: Yu-Chen Tsai and Chung-Han Chan</i>	
11:25 AM – 11:40 AM	Update of the New Zealand earthquake catalogue	Annemarie Christophersen
11:40 AM – 11:55 AM	TaiQuake: Earthquake and Focal Mechanism Catalogs for Taiwan from 2012 to 2026 Using Deep Learning for Phase Picking and Consensus among Multiple Association Methods	Wu-Yu Liao
11:55 AM – 12:10 PM	An Integrated Earthquake Catalogue and Probabilistic Event-Type Classifications along the Puysegur and Hikurangi-Kermadec Subduction Zones	Chris Rollins
12:10 PM – 1:10 PM	Lunch	
	Monitoring, Response & Event Impact I <i>Chair: Jack McGrath</i>	
1:10 PM – 1:25 PM	DARE, an agentic A.I. empowered digital twin for multi-peril resilience	Bill Fry
1:25 PM – 1:40 PM	From Ground Motion to Building Monitoring: 20 Years of SMA Observations and New Applications of Smart QGIS Sensors	Kuo-Fong Ma
1:40 PM – 1:55 PM	Rapid response: source shaking and impacts	Anna Kaiser
1:55 PM – 2:10 PM	An Unsupervised Learning Approach for Aftershock Clustering and Fault Plane Geometry Estimation	Kuan-Ting Tu
2:10 PM – 2:25 PM	Discussion	
2:25 PM – 4:05 PM	Afternoon tea and breakout session on databases	
	Fault data and models I <i>Chair: Azuma Akai and Jade Humphrey</i>	
4:05 PM – 4:20 PM	Fault source and inversion models	Andy Nicol
4:20 PM – 4:35 PM	Modeling subduction interface seismicity in recent and future USGS NSHMs: the fault-system inversion methodology and uncertainty quantification	Kevin Milner
4:35 PM – 4:50 PM	When faults cross dams: Observations from recent surface-rupturing earthquakes	Ryan Gold
4:50 PM – 5:05 PM	Constraining Fault Slip and Interseismic Locking Across Taiwan Using Geologic and Geodetic Deformation	Ping-Chen Chiang
5:05 PM – 5:20 PM	Direct video tracking of earthquake rupture propagation from near-fault security cameras	Jesse Kearse
5:20 PM – 5:30 PM	Discussion	

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Day 2 | Wednesday 28 October 2026

Time	Title	Speaker
Ground motion models I <i>Chair: Aisling O'Kane and Cesar Pajaro Miranda</i>		
9:00 AM – 9:15 AM	Ground-motion prediction and its uncertainties for the 2026 Kumamoto Earthquake	Asako Iwaki
9:15 AM – 9:30 AM	Towards a comprehensive validation of broadband ground-motion simulations in New Zealand	Felipe Kuncar
9:30 AM – 9:45 AM	Cyclic Projection Meta-framework for non-ergodic Ground Motion Model: An application to Gaussian Process Model	Ryuta Imai
9:45 AM – 10:00 AM	NZ Vs30 Map update	Jaehwi Kim
10:00 AM – 10:15 AM	Region-specific anelastic attenuation in the New Zealand National Seismic Hazard Model: implementation, evaluation and implications	Duo Li
10:15 AM – 10:30 AM	Selection of Critical Ground Motions for Structures Based on Machine Learning-Based Seismic Hazard Assessment	Yuma Matsumoto
10:30 AM – 10:40 AM	Discussion	
10:40 AM – 11:40 AM	Morning tea and poster session	
Simulators <i>Chair: Aaron Rampersad</i>		
11:40 AM – 11:55 AM	Earthquake simulators and seismic hazard modelling	Camilla Penney
11:55 AM – 12:10 PM	Physics-based ground motion hazard estimation using the 2022 National Seismic Hazard Model	Jake Faulkner
12:10 PM – 12:25 PM	Upper-plate and interface joint ruptures in central A-NZ, Potentially from a RSQSim perspective	Jade Humphrey
12:25 PM – 1:25 PM	Lunch	
Fault data and models II <i>Chair: Chen Cheng-Hung and Yuji Dohi</i>		
1:25 PM – 1:40 PM	Tectonic geomorphology of the San Andreas fault system: slip rates and Quaternary kinematics	Kimberly Blisniuk
1:40 PM – 1:55 PM	Tectonic geomorphology of the northern Ulsan fault, southeastern Korea	Bruce Shyu
1:55 PM – 2:10 PM	What we learned from the Surface Rupture of the 2025 Mandalay Earthquake	Yu Wang
2:10 PM – 2:25 PM	New Paleoearthquake Timings on the Dunstan Fault, New Zealand: The Importance of Selective IRSL Dating Methodologies	Alexandra Travers
2:25 PM – 2:35 PM	Discussion	
2:35 PM – 4:15 PM	Afternoon tea and breakout session on the future of NSHM	
Offshore <i>Chair: Ryuta Imai and Kevin Milner</i>		
4:15 PM – 4:30 PM	Active Tectonics and Shallow Creep in Offshore Southwestern Taiwan: Insights from Geodetic Observations of Liuchiu Island	Chih-Yang Tsou
4:30 PM – 4:45 PM	Advancing 3D seismic tomography and hypocenter determination at subduction zones – a Japan-NZ joint research programme update	Dan Bassett
4:45 PM – 5:00 PM	Nucleation process of the 2025 Mw 6.8 Sanriku-Oki earthquake revealed from the joint inversion of the S-net OBS and OBPB data	Ritsuya Shibata
6:30 PM – 8:30 PM	Conference Dinner at The Thistle Inn	3 Mulgrave Street

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Day 3 | Thursday 29 October 2026

Time	Title	Speaker
	Ground motion models II <i>Chair: Elena Manea and Chris Rollins</i>	
9:00 AM – 9:15 AM	The Directivity Framework for NZ-NSHM	Kiran Thingbaijam
9:15 AM – 9:30 AM	Progress towards validation of hybrid broadband ground-motion simulation for large-magnitude earthquakes in New Zealand	Cesar Pajaro Miranda
9:30 AM – 9:45 AM	Physics-Informed Attenuation in Subduction GMMs: Depth Scaling and Tomographic Path Effects	Sanjay Bora
9:45 AM – 10:00 AM	Towards Evaluating Spatial Correlations in Hybrid-Broadband Physics-Based Ground-Motion Simulations	Aaron Rampersad
10:00 AM – 10:15 AM	Discussion	
10:15 AM – 10:30 AM	Morning tea	
	Monitoring, Response & Event Impact II <i>Chair: Asako Iwaki and Camilla Penney</i>	
10:30 AM – 10:45 AM	FinDer and Early Warning in New Zealand	Jen Andrews
10:45 AM – 11:00 AM	A Whole Life Cycle Carbon Assessment Methodology Incorporating Disaster-Related Emissions	Chikara Iihoshi
11:00 AM – 11:15 AM	Integrating probabilistic and scenario-based seismic risk assessment in Taiwan: Long-term risk and historical event validation	Chung-Han Chan
11:15 AM – 11:30 AM	Community-Based Macroseismic Mapping of the 2025 Mw 7.7 Mandalay/Sagaing Earthquake	Ei Mhone Nathar Myo
11:30 AM – 11:45 AM	NIED's World-Class Seafloor Observation Networks for Earthquakes and Tsunamis: S-net, DONET, and N-net	Tetsuya Takeda
11:45 AM – 11:55 AM	Discussion	
	Wrap Up	
11:55 AM – 12:10 PM	Introduction to Field trips	Jade Humphrey
12:10 PM – 12:15 PM	Introduction to next workshop in Japan	
12:15 PM – 1:00 PM	Lunch	
1:00 PM – 6:00 PM	Optional field trip to Turakirae Head	

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Posters

Title	Author
Construction and Release of the Japan Community Fault Model	Azuma Akai
New constraints on the source of the 1929 Mw 7.0 Arthur's Pass earthquake	Matt Parker
Reconstructing the spatio-temporal behaviour of historical earthquakes in the Transition Zone	Aisling O'Kane
Unraveling Interseismic Creep and Triggered Slip of the Houchiali Fault Using GNSS Time Series	Chen Cheng-Hung
Mapping alluvial fans and exposure on the West Coast of Aotearoa-New Zealand	Gina Sarkawi
Intrinsic Uncertainty of noise cross-correlation functions and its implications to source properties	Ying-Nien Chen
Deep seismic structure beneath Aotearoa, Wellington, from ambient noise analysis	Sandra Bourguignon
Relationships Between Site Amplification And Measured And Inferred Site Parameters In New Zealand	Elena Manea
Regional Earthquake Catalog Integration and Event Matching Analysis: Case Studies from Taiwan and the Ryukyu Arc	Yu-Chen Tsai
Analysis of the expansion of land below sea level due to coseismic subsidence for great earthquakes along the Nankai Trough	Yuji Dohi
A Unified Earthquake Catalog for Indonesia: Harmonizing Multi-Agency Seismic Datasets	I Gusti Ketut Satria Bunaga
Surface strain rate estimates for the Taiwan orogenic belt	Ray Chuang
Thermal control on slow slip beneath the Taiwan collision belt: from deep aseismic slip to the M7.3 Hualien earthquake	Wei Peng
NZ-CUSP: Coseismic Uplift and Subsidence Probabilistic Hazard for Aotearoa New Zealand	Jack McGrath
Rupture mapping from fibre-optic cables in event response	Bill Fry
Sensitivity of Earthquake Rupture Behaviour to Fault-Network Structure: Insights from the Hope Fault System, South Island of Aotearoa New Zealand	Avinash Gupta
Quality Evaluation of Ocean-Bottom Pressure Data from N-net in the Nankai Trough Megathrust Earthquake Source Region, Japan	Tetsuya Takeda