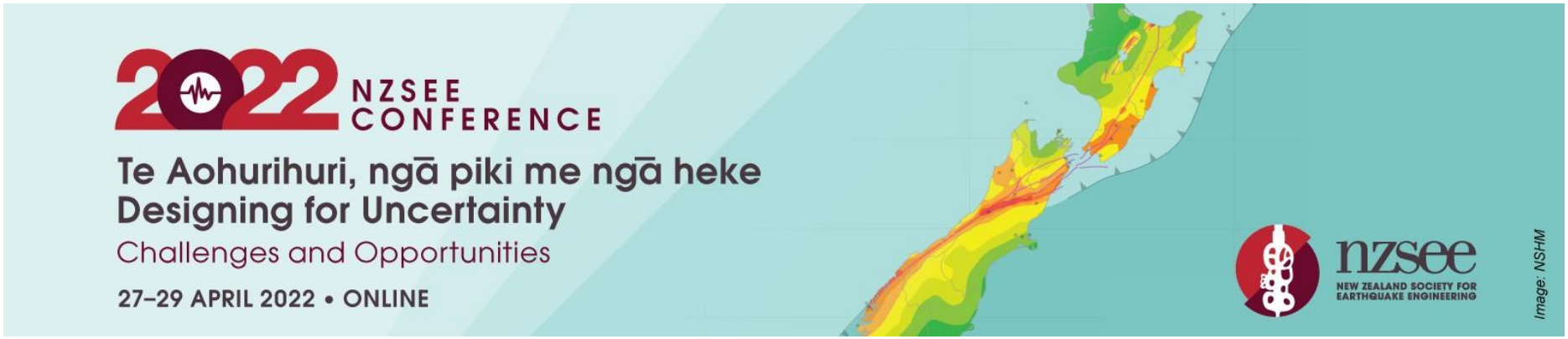

NZSEE 2022 Online Conference Programme (at 26 April 2022)

WEDNESDAY 27 APRIL					
11.00 – 11.30	**Mihi Whakatau** Kelvin Tapuke **Opening** Annie Scott, NZSEE 2022 Convenor **Introduction** Helen Ferner, NZSEE President				
11.30 – 13.00	**Plenary: Designing for Uncertainty** Andy Thompson, Michelle Grant, Tim Sullivan Chair: Helen Ferner				
13.00 – 14.00	**Break**				
14.00 – 15.00	**Poster Session**				
15.00 – 16.15	**1A: Analysis Techniques** **Chair: Quincy Ma**	**1B: Civil Structures** **Chair: Tori Shrimpton**	**1C: Low Damage Design** **Chair: Charles Clifton**	**1D: Earthquakes and Geophysics** **Chair: SR Uma**	**1E: Timber** **Chair: Lauren Vinnell**

15.00 – 15.12	Validity of conventional single mode pushover analysis in multi-mode systems **Stuart Orchard and Ruozi Zhang**	Earthquake Design Loads on Retaining Walls **John Wood**	BRB Structure Design Considerations **Gregory MacRae**	Depth and Shape of the Basement Surface Beneath Wellington City, Based on Gravity and Seismic Constraints **Tim Stern**	Case Study on Cantilever CLT Shear Walls with Bolted Hold-downs for Earthquake Resistance **Ben Moerman**
15.12 – 15.24	Retaining wall design - SESOC **Geoff Bird**	Seismic Isolation of Bridges: Case Studies **Mohammed Mohammed**	Application of resilient rocking cores in low damage mass timber structures: A case study **Ashkan Hashemi**	Interim Results from Empirical Ground Motion Model Evaluation for the NZ National Seismic Hazard Model Update **Robin Lee**	Ductile timber connections: Understanding the factors contributing to their ductility **Pierre Quenneville**
15.24 – 15.36	Investigation of Influential Factors on Yield Strength of Lead Rubber Bearings **M Masoud Pourmasoud**	Sustainability in enhancing the resilience of major route in Wellington **Sivasith Arumugam**	Effect of Energy Dissipation on Seismic Response **Masoumeh Farshbaf**	Seismic structural monitoring in Wellington using advanced seismological techniques **Caroline Francois-Holden**	Repair and Reinstatement of Douglas-fir CLT Hold-down Connections using Mixed Angle Self Tapping Screws **Thomas Wright**
15.36 – 15.48	Dealing with uncertainty in prediction of lateral spread **Vincent Smith and Stuart Palmer**	Modelling of nonlinear behaviour of steel bridges using vibration measurements **Niusha Navabian**	Prediction of Demands on Non-Structural Components in Base-Isolated Structures **Kieran Haymes**	The Damaging Power of Earthquakes and the Role of Duration **David Hopkins**	Seismic retrofit of historic timber structures: Uncertainties and adaption on site **Matt Davies**
15.48 – 16.00	Modelling uncertainty induced by plastic hinge length in lumped-plasticity analysis of RC structures **Junan Mou**	Reclamation Resilience Improvement at CentrePort, Wellington New Zealand **James Munro**	Seismic response of a base-isolated building under pulse-like near-fault ground motions **Ali Rad**	Dynamic site characterisation of the Hawke's Bay sedimentary basin using H/V and surface wave methods **Andrew Stolte**	Mass timber design – the tricky bits: Canadian case studies for acoustic and vibration solutions from a structural engineer **Andrew Dunbar**
16.00 – 16.15	**Q&A with all presenters**	**Q&A with all presenters**	**Q&A with all presenters**	**Q&A with all presenters**	**Q&A with all presenters**

16.15 – 16.25	**Break**			
16.25 – 17.25	**2A: Geotechnical** **Chair: Merrick Taylor**	**2B: Existing Structure** **Chair: Tony Holden**	**2C: Case Study** **Chair: Bruce Curtain**	**2D: Societal Expectation** **Chair: Julia Becker**
16.25 – 16.37	Liquefaction potential of sand-gravel mixtures: experimental observations **Abilash Pokhrel**	The role of in-plane strengthening within a proposed non-specific design approach to seismic improvement for URM buildings **Hamish Tocher and Matthew Cutfield**	A case study of Soil-Foundation-Structure-Interaction for aseismic design of wind turbines. **Gopal Adhikari**	Social Influences on Behavioural Response to Earthquake Shaking **Lauren Vinnell**
16.37 – 16.49	New Revision of the National Design Guidelines for Ground Improvement **Alexei Murashev**	Seismic strengthening of the Seatoun tunnel **Paul Wymer**	A Bespoke Analytical Methodology for Seismic Safety Assessment of Spillway Gates: Case Study of Waipapa Dam Spillway on the Waikato River **Umair Siddiqui**	Integrating Māori Perspectives into Community Resilience Frameworks for the Built Environment **Megan Boston**
16.49 – 17.01	Sustainability Aspects of Earthquake Geotechnical Engineering in New Zealand **Alexei Murashev**	Seismic Performance of Precast Hollow-core Units Seated Within the Plastic Hinge Region **Mohamed Mostafa**	Geotechnical Challenges and Design Solutions for Yarrow Stadium Redevelopment **Paulo Alves**	The shaky south (or not): towards improving communities understanding of earthquake risk in Otago and Southland **David Johnston**
17.01 – 17.13	Liquefaction-Induced Parabolic Subsidence Method: A rationale method for structural engineers to design waffle slabs in accordance with MBIE Guidance **Fabio Parodi**	Mechanical Anchor Shear Reinforcing as a Seismic Retrofit Technique for Hollow-Core Floors **Robert Hudson**	An Integrated Resilience Strategy for Wellington's Land Transport System **Pathmanathan Brabhaharan**	**Q&A with all presenters**
17.13 – 17.25	**Q&A with all presenters**	**Q&A with all presenters**	**Q&A with all presenters**	

THURSDAY 28 APRIL				
11.00 – 12.00	**Plenary: From new Seismic Hazard models to new Design Practice – challenges and opportunities** Matt Gerstenberger and Alistair Cattanach Chair: Ken Elwood			
12.00 – 12.10	**Break**			
12.10 – 13.25	**3A: Analysis Techniques** **Chair: Andy Thompson**	**3B: Concrete** **Chair: Rajesh Dhakal**	**3C: Low Damage Design** **Chair: Peter Holden**	**3D: Risk** **Chair: Caroline Holden**
12.10 – 12.22	Fast and Furious? Drive your analysis vehicle carefully **Arun M. Puthanpurayil**	Study on floor-slab effect of a 2-storey low-damage concrete wall building **Anqi Gu**	Assessing the impact of acceleration-sensitive components on the seismic losses of multi-storey office buildings **Michael Williamson and Luis John**	Mainstreaming building code practice and risk management principles towards disaster risk reduction **Amarachukwu Nwadike**
12.22 – 12.34	Experimental and Analytical Evaluation of Different Failure Modes Associated with Self-centring Braces **Seyed Mohammad Yousef-Beik**	Code requirements for column confinement with a view on drift **Max Dawson**	Benchmarking the Seismic Performance of Code-Conforming Buckling Restrained Braced Frames **Sistla Saiteja**	Risk-Targeted Framework for Seismic Design: Maintaining Functionality **Anne Hulsey**
12.34 – 12.46	Method for incorporating seismic hazard into the traditional Life Cycle Assessment for evaluating seismic performance **Rosa Gonzalez Espinel**	Retrofit Solution for Ductile Reinforced Concrete Moment Frame with Un-topped Pre-cast Concrete Floor Structure Using Fluid Viscous Dampers **Amir Moshref**	Accounting damping, uncertainties related to performance, modelling and design methods for structures with dampers **Setu Agarwal**	Rating Houses for Strength and Damage: A simple App for owners and insurers **David Hopkins**
12.46 – 12.58	A Review of Guidance for Tsunami Loading on Buildings **Henry Till**	A novel solution for retrofitting concrete structures with resilient connections: a case study **Ashkan Hashemi and Terry Dawson**	Archives Wellington Lease – Heke Rua Archives – 2 Aitken Street **Tessa Beetham**	Advancing NZ Hospital Seismic Readiness: Creating a Post-Earthquake Functionality Dashboard **Bethany Mayer**

12.58 – 13.10	Effects of explicit representation of buildings in tsunami inundation and loss modelling **Vinod Sadashiva**	Residual capacity of earthquake-damaged reinforced concrete walls **Gonzalo Muñoz**	Elastic Design (μ=1.0) of Damage Avoidance Structures **Farhad M. Darani**	Monitoring technologies to manage landslide risk to transportation routes in the Lower North Island **David Stewart**
13.10 – 13.25	**Q&A with all presenters**	**Q&A with all presenters**	**Q&A with all presenters**	**Q&A with all presenters**
13.25 – 15.30	**Break**			
15.30 – 17.00	**Plenary: Resilient Building Project** Charlotte Brown, Hugh Cowan, Shannon Abeling, Helen Ferner Chair: Hugh Cowan			
17.05 – 18.00	**NZSEE AGM** Helen Ferner, NZSEE President			

FRIDAY 29 APRIL	
11.00 – 12.30	**Plenary: Looking to the future for seismic design – Considerations to improve NZ resilience** Didier Pettinga, Charlotte Toma, Pathmanathan Brabhaharan, Max Stephens Chair: Annie Scott
12.30 – 13.30	**Break**
13.30 – 14.55	**Keynote: From Ductility to Repairability - Evolution of Building Design in the Wake of the Christchurch Earthquake** Ken Elwood Chair: Jo Horrocks **Closing** **Poroporoaki**