



* 13th Annual **DEVORA** Research Forum *
DEtermining **V**olcanic Risk in Auckland

Tuesday, 3 November 2020

Department of Mathematics, Princes St., University of Auckland City Campus, Auckland, New Zealand
 Building 303, Room SLT-G01

Zoom join link: <https://tinyurl.com/DEVORUM13>

Programme

9:30 – 9:40	<i>Forum Welcome & Introduction (DEVORA Programme Leaders)</i>
Session I: Understanding Auckland's Geology- Geochemistry	
9:40 – 9:55	Dr Mike Rowe – <i>Se7en: A He Isotope Story of the Auckland Volcanic Field</i>
9:55 – 10:10	Dr Marco Brenna – <i>Mantle metasomatism and implications for primary basalt composition in intraplate volcanic provinces</i>
10:10 – 10:30	Pop Up Presentations: Session I (See Back of Page)
10:30 – 10:45	GNS Urban Geological Mapping Team – <i>A 3D sub-surface geological model for the south Auckland area</i>
10:45 – 11:05	Morning Tea & Poster Session I
Session II: Understanding Auckland's Geology- Geophysics	
11:05 – 11:20	Benjamin Laeuchli (PhD) – <i>Stratigraphy and evolution of the Onepoto maar lake sediment sequence (Auckland Volcanic Field, New Zealand)</i>
11:20 – 11:35	Prof. James White & Dr Rosie Cole – <i>Project ArtFiSH: how erupting a ton of wax through an artificial fissure will help us learn about the first phases of Auckland's next eruption</i>
11:35 – 11:50	Dr Josiah Ensing – <i>A 3D shear speed model of the AVF crust</i>
11:50 – 12:15	Pop Up Presentations: Session II (See Back of Page)
12:15 – 1:00	Lunch & Poster Session II
Session III: Modelling Auckland's Volcanic Hazards and Preparing for an Eruption	
1:00 – 1:15	Fee Arens (PhD) – <i>Using a Multiphysics modelling approach to quantify volcanic unrest</i>
1:15 – 1:30	Prof. Tom Wilson – <i>Deconstructing the Disaster: Volcanic Loss Models for Auckland</i>
1:30 – 1:45	Nicole Allen (PhD) – <i>Experimentation and framework development for multi-volcanic hazard impact assessment</i>
1:45 – 2:00	Sharuya Sood (PhD) – <i>Geotechnical Characterization of New Zealand Volcanic Soils for Land Reclamation projects</i>

2:00 – 2:20	Pop Up Presentations: Sessions III (See Below)
2:20 – 3:00	Afternoon Tea & Poster Sessions III
Session IV: Preparing Auckland's population and economics	
3:00 – 3:15	Alec Wild (PhD) & Dr Sophia Tsang – AVF Simulation Exercise: Teaching students crisis management
3:15 – 3:30	Robert Cardwell (PhD) – Simulation of post eruption time variant land use and economic impacts of the Mangere Bridge volcanic eruption scenario
3:30 – 4:30	Wrap-Up Discussion & Special Topic Presentations

Session I: Pop Up Presentation & Poster Titles

Presenter	Title
Jill Kenny	<i>Updating the Waitemata Group Erosion Surface map in GIS - new depths and new faults</i>
Sian Camp	<i>Creating a seismic baseline for the Auckland Volcanic Field</i>
Fian Luthfian (PhD)	<i>The influence of basement structure on the vent position in AVF and WVF</i>
Assoc. Prof. Ian Smith	<i>Why is there a volcanic field in Auckland</i>

Session II: Pop Up Presentations & Poster Titles

Presenter	Title
Lorenzo Mantiloni, Dr Eleonora Rivalta, A Gaete Rojas, T Davis	<i>Modelling of magma pathways in an external stress field with analog experiments</i>
Maddie Anae	<i>Indications of complex magma storage at the AVF via diffusion and BSE greyscale analyses of olivine xenocrysts from Pupuke Maar</i>
Dr Jenni Hopkins	<i>TephraNZ</i>
DEVORA Management Team	<i>DEVORA Announcements</i>

Session III: Pop Up Presentations & Poster Titles

Presenter	Title
Richard Woods	<i>RiskScape 2.0 Update: NZ's next gen loss modelling software</i>
Holly Faulkner (PhD)	<i>Governing Disaster Response in Aotearoa New Zealand – An Auckland Volcanic Field Case Study</i>
Natalia Lipiejko	<i>Volcanic tsunami</i>
Megan Allington	<i>Constraining the Eruption History of the Rangitoto Volcano using Palaeomagnetic Data</i>