

Chemical & Physical Sciences UNIVERSITY OF TORONTO

MISSISSAUGA

COLLOQUIUM SEMINAR SERIES

Wednesday, September 19, 2018 at 3:10pm in CC2150

Lava Domes and Pyroclastic Flows: What Controls if a Lava Dome is Hazardous?



Lava domes are the result of the extrusion of extremely viscous lava. They often form after a large, explosive eruption and mark an extended period of growth and collapse cycles. These collapse events, forming large pyroclastic flows known as block and ash flows, force government agencies to maintain large exclusion zones around the volcano, preventing the population from rebuilding homes and livelihoods. However, the causes behind the collapse events are poorly understood.

My research focuses on collapse potential of two lava domes – Ngongotaha (within Rotorua Caldera) and Tarawera (within Okataina Caldera) located in the Taupo Volcanic Zone, New Zealand. I will present the results of field mapping of the domes, experimental volcanology on the behavior of the lava as well as growth models and hazard potential of the lava domes.

