



A Collaborating Technical Society
of The Institution of Professional
Engineers New Zealand



Christchurch Branch Presentation

12th May 2021

Tonkin & Taylor,

Level 3, 60 Cashel St,

Central City, Christchurch

Light Refreshments from 5.30pm

Presentation 6pm

[Please register HERE](#)

Separation of Pumice from Soil Mixtures

Presented by Dr Mark Stringer

Senior Lecturer, School of Civil & Natural Resources Engineering, University of Canterbury

Please join the NZGS Christchurch Branch in celebrating Dr Mark Stringer receiving the 2018-2021 JW Ridley Geomechanics Paper award, for his paper "Separation of Pumice from Soil Mixtures", published in Soils and Foundations in August 2019. Mark will present his work on this topic, followed by a brief Q&A session.

Pumice-rich deposits are found in a number of locations around the world, and in particular across large areas of the North Island of New Zealand. Pumice grains are commonly described as being lightweight, highly crushable, and vesicular in nature. These characteristics give rise to a unique set of behaviours under loading, and pumice-rich soils are highly problematic in terms of in situ characterisation in large part due to their crushability. The presence of pumice within a soil mixture has the potential to completely alter the stress-strain behaviour of these soils as well as require a different interpretation of results from commonly used site characterisation technique. It is therefore important to be able to determine quantitatively the percentage of pumice within a given soil deposit. This paper proposes a methodology based on a gravity separation of pumice-bearing mixtures with a heavy fluid. The application of the method to artificial mixtures of fine pumice and non-pumiceous sands is shown to be sufficiently accurate for engineering purposes.

NOTE: Dr Mark Stringer will also present this paper in the Waikato district later this year

Also

The winning posters of the NZGS 2020 Student Poster competition will be on display during the event.

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