



香港岩土及岩土環境工程專業協會  
ASSOCIATION OF GEOTECHNICAL &  
GEOENVIRONMENTAL SPECIALISTS (HONG KONG)

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## AGS (HK) Technical Seminar

### Rainfall-triggered landslides in Auckland, New Zealand: engineering properties, failure processes and InSAR analysis

by

**Professor Martin Brook**  
(The University of Auckland)

**Date:** Thursday, 30 April 2026

**Time:** 18:30 – 19:30 (Hong Kong Time)

**Venue:** The webinar will be conducted through Zoom.

Successful applicants will be informed by emails with a Zoom's link to the webinar. Participants should arrange for their own device with a stable network environment to join the webinar.

**Enquiry:** [agshk.org@gmail.com](mailto:agshk.org@gmail.com)

**Fee:** Free of charge

**Registration:** <https://www.ags-hk.org/event-details/rainfall-triggered-landslides-in-auckland-new-zealand-engineering-properties-failure-processes-and-insar-analysis>

Please register by 18:30 on 30 April 2026. Successful applicants will receive webinar details after registration. CPD certificate will be sent to the attendees, who attended more than 80% of the webinar time, within 2 weeks after the webinar.

**Book Prize:** Professionals under 35 years of age are encouraged to submit a Book Prize Report (max. 500 words) on webinars and site visits arranged by AGS (HK).

Contributors to successful Book Prize Reports will be awarded a Book Prize that comprises of a book "Geology of Site Investigation Boreholes in Hong Kong" written by Chris Fletcher, and a coupon of HK\$500 for Eslite Spectrum (誠品生活) or equivalent. The successful Book Prize Report will also be published on the AGS (HK) website to showcase your accomplishment.

Prior to report submission, please refer to the "The AGS Book Prize Reports – Assessment Framework"\* on the AGS (HK) website. You may submit your Book Prize Report to our assessors by uploading the report file through the AGS (HK) website at <https://www.ags-hk.org/book-prize>. Should you have any questions, please contact us at [agshk@meinhardt.com.hk](mailto:agshk@meinhardt.com.hk).

\*Link to the AGS Book Prize Reports – Assessment Framework:  
[https://www.ags-hk.org/files/ugd/521a4c\\_b94496034732484687441cf4ed4d0b9.pdf](https://www.ags-hk.org/files/ugd/521a4c_b94496034732484687441cf4ed4d0b9.pdf)



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### **Synopsis:**

With ~1.7m people, Auckland is New Zealand's most populous region, and much of the region is prone to landslides. The geology of the region is varied, with most of the region covered in residual soils formed on Miocene age sedimentary or volcanic rocks. In addition, the remnants of 53 volcanoes of the Quaternary Auckland Volcanic Field (AVF) dominate the topography of the city and suburbs. While the slopes of many of these scoria cones are free-draining, landslides have occurred in recent years. On the west coast of Auckland, Plio-Pleistocene Awhitu Group sands are present, and failure of slopes formed on these materials has had disastrous consequences for houses downslope. These dune sands are largely uncemented and permeable, but include discrete (<1 m thick) beds of weathered distal tephra from the Taupo Volcanic Zone (TVZ). These beds act as aquicludes during heavy rainfall, destabilising the overlying uncemented sands, which can fail and flow extremely rapidly downslope, inundating houses. This talk draw attention to recent and ongoing research in this area, including material properties and remote sensing.

### **About the Speaker:**

Martin Brook is Professor of Applied Geology at the University of Auckland, New Zealand, where he is also the director of the Master of Engineering Geology programme. His research interests are focused on engineering and environmental geology, in New Zealand and the Pacific Islands, particularly on land instability. He is a Chartered Geologist with the Geological Society of London and a Chartered Member of Engineering New Zealand (PEngGeol). He is a member of JTC3, a committee of the Federation of International Geo-engineering Societies (FedIGS), with a primary goal to promote cooperation among international geo-engineering societies in areas such as education, training, and outreach. Prior to his present academic role, he worked for large engineering consulting companies in Australia and the middle east. He has published >100 journal articles, given >150 conference presentations, won >NZ\$10m in research funding, and supervised >70 research students to completion.