

Material point method and applications in geotechnical engineering

Dr Alex Rohe

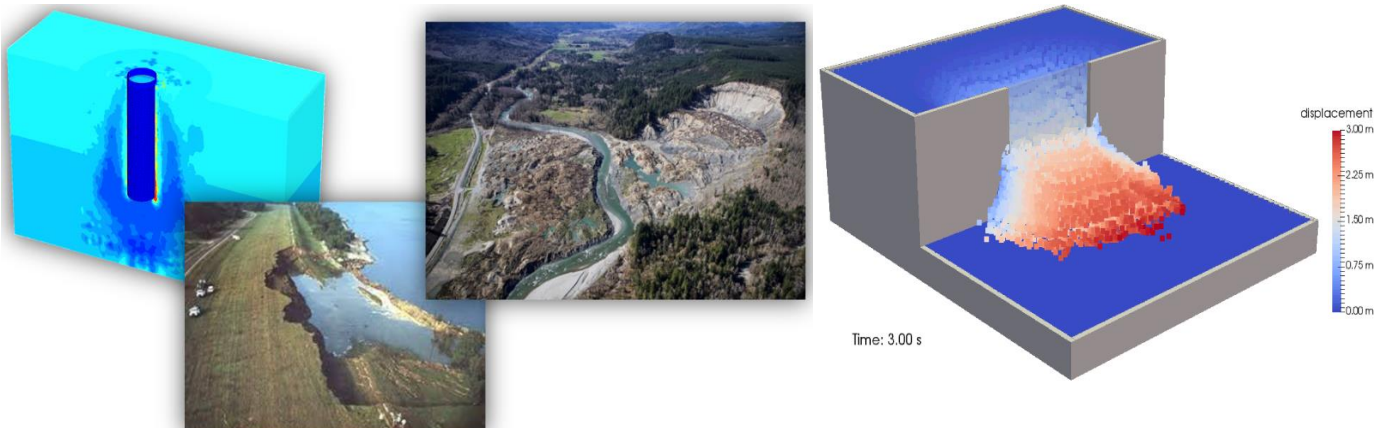
Senior consultant at Deltares Delft, Netherlands.

Seminar overview:

Large deformations and soil-water-structure interaction play an important role in the assessment of geotechnical and hydraulic structures. Examples are the post-failure analysis of slopes and embankments, analysis of failure mechanisms of dykes for flood protection, effects of landslides and its mitigation measures, occurrence of submarine flow slides, bearing capacity of displacement piles or internal and external erosion problems. The talk will introduce the material point method as a numerical tool and demonstrate its suitability in addressing some of these challenges by using various practical examples.

Biography:

Dr Alexander Rohe is a senior consultant in geotechnical engineering at Deltares Delft in The Netherlands. His research interests are focused on the development of numerical tools for the modelling of large deformation and soil-water-structure interaction problems in geotechnical and hydraulic engineering for which he is deploying the material point method (MPM). Currently, he is involved in the development of the Anura3D MPM Software. He organised workshops and conferences on MPM, and is involved in teaching MPM to both postgraduates and practicing engineers. He is active member of the Anura3D MPM Research Community, which is a collaboration of eight universities and Deltares focussing on the joint development of MPM. In the past he was Marie-Curie Research Fellow at the Engineering Department of the University of Cambridge. In 2016 he was visiting By-Fellow at Churchill College.



When and where:

Wednesday, 18th October, 19:00
Jock Colville Hall, Churchill College

Queries:

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