# Imperial College London





# Data in Geotechnical Engineering: beyond conventional methods and design

## A half day seminar at Imperial College

# 1:15 – 4:30 pm, 13<sup>th</sup> March 2024, followed by Rankine lecture at 5:30pm

#### **Chair:**

### Prof. Catherine O'Sullivan, Imperial College London

Session 1		1:15 – 2:35
Navigating challenges to ensure reliable geo-solutions in the data-driven generation	Suzanne Lacasse Norwegian Geotechnical Institute, Norway	1:15 – 1:35
Global pile driving model calibration with Bayesian inference	Thomas Vergote  DEME Group, Belgium	1:35 – 1:55
How can AI and ML replace the geotechnical engineer?	Ronald Brinkgreve Delft University of Technology, The Netherlands & Seequent – the Bentley Subsurface Company	1:55 – 2:15
Discussion moderated by David M G Taborda, Imperial College London, UK		2:15 – 2:35
Coffee break		2:35 – 3:10
Session 2		3:10 – 4:30
Integrating surrogate modelling into the design and construction of urban excavations	Agustín Ruiz López Imperial College London, UK	3:10 – 3:30
Back analysis in the observational method: bringing together instrumentation and modelling in deep excavations	Antonio Cañavate-Grimal  Arup, UK	3:30 – 3:50
Automated reconstruction of digital twins for underground infrastructure	Jelena Ninic University of Birmingham, UK	3:50 – 4:10
Discussion moderated by David M G Taborda, Imperial College London, UK		4:10 - 4:30

#### Venue:

Imperial College London, Department of Civil & Environmental Engineering Skempton Building, London SW7 2BU

#### Main room:

LT 164 – ground floor, Skempton Building

#### Overflow room:

LT 201 – first floor, Skempton Building