



AVVISO DI SEMINARIO

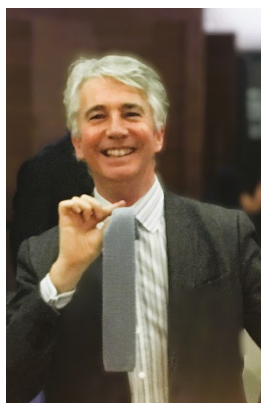
Matthew Roger Coop
Professor of Geotechnics
University College London

Venerdì 23 Maggio 2025
ore 11:30-12:45

presso la Biblioteca di Geotecnica
Via Eudossiana 18, Chiostro della Facoltà
proporrà una versione aggiornata della 7^a Bishop Lecture del 2023 dal titolo:

The Mechanics of Coarse-Grained Geomaterials at Meso- and Micro-Scales

In order to move towards discrete analyses of soil behaviour, we need to develop a new range of apparatus and testing techniques. The lecture describes attempts to develop these new apparatus and presents data for a range of coarse-grained geomaterials at the single particle scale. The roles of the particle morphology and hence geological origin are discussed and are shown to influence both the contact mechanics and particle breakage behaviour. The mechanics of single particles are shown to be more complex than generally assumed and will require new means of modelling to account for the significant plasticity that occurs at particle contacts and patterns of breakage that are strongly influenced by the origins of particles and their effect on their morphology.



Matthew Coop has about 40 years research experience, concentrating on the behaviour of soils and weak rocks as revealed through high quality laboratory testing. Following industrial experience in offshore foundations and his Doctorate on the behaviour of offshore piles at Oxford University under the supervision of Peter Wroth, he was a lecturer/senior lecturer at City University, London before moving to Imperial College in 2000, where he became professor in 2007. In 2010 Matthew Coop moved to the City University of Hong Kong where he established a laboratory specialising in the micromechanics of soils. In 2016 he returned to London to University College. In 2003 he delivered the Géotechnique Lecture and in 2023 the Bishop Lecture. He is the current chair of TC101 of the ISSMGE, for the laboratory testing of soils. He was the founding editor of Géotechnique Letters and editor in chief of Géotechnique between

2020-23. Matthew is the author of over 110 journal papers which have been awarded ten major research prizes.