



# EME International Seminar Series



## Introduction to statistical mechanics of granular media

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### Abstract:

This lecture aims to introduce postgraduate students to statistical mechanics (SM) of a thermal many-body systems, such as granular and colloidal materials. In the first part, I will review very briefly the principles and formalism of SM for traditional thermal systems. I will then describe the adaptation of SM formalism to particulate systems. Finally, I will demonstrate how to use the formalism to derive equations of state and some structural properties.

### Bio:

Professor Rafi Blumenfeld received his PhD in theoretical physics from Tel Aviv University, Israel. He is a College Lecturer and Bye-Fellow of Gonville and Caius College of Cambridge university, as well as a long-term associate member of the Cavendish Laboratory at Cambridge. He is also a Research Fellow at Imperial College London, a Distinguished Professor at the National University of Defence Technology, China, and a 1000-talent plan awardee and a High Level Foreign Talent awardee of the Chinese government. He held positions at universities of Cambridge, Princeton and Warwick, as well as at Los Alamos National Laboratory, USA. He was also a project leader at a software company.

For more information, full CV and publication list, please see Rafi's personal page: <http://rafi.blumenfeld.co.uk>.

Monday, December 21, 2020 17:00 – 18:00 JST

Online (Microsoft Teams, Team code: qwa2twu)