

Einladung
zum
Physikalischen Kolloquium
Montag, 16.07.2018
16:15 Uhr in N24/H13

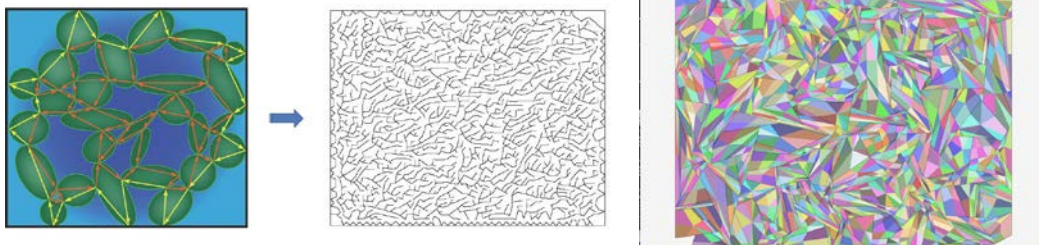


Prof. Dr. Raphael Blumenfeld
Cambridge University, Gonville & Caius
College and Cavendish Laboratory
Imperial College London

“Self-organised disorder in particulate systems and statistical mechanical implications”

The microstructural evolution of granular materials during deformation is one of the key factors determining their macroscopic constitutive behavior. I will describe a recently proposed method of statistical structural analysis in 2D and show that:

- (i) the method is sensitive to the disordered ‘micro’-structure and therefore allows us to distinguish between seemingly similar structures;
- (ii) a number of structural characteristics are largely independent of friction coefficient and initial conditions;
- (ii) distributions of several quantities collapse to a universal-like form;
- (iii) contrary to textbook teachings, there is a unique relation between the coordination number and the rattler-free packing fraction;
- (iv) the structures of granular materials, while disordered, are not random!



Ab 16.00 Uhr Kaffee, Tee und Kekse vor dem Hörsaal H13
Organisation: Prof. Dr. F. Jelezko, Tel. 23750
Host: Prof. Dr. O. Marti, Tel. 23011, off.: 23010