Geometry of Smooth Gaussian Fields and Percolation

SPEAKER: Dmitry Belyaev, Oxford University
TIME: 11:00am - 12:00pm, Tuesday, March 19, 2019
VENUE: Room 211, Pudong Campus, 1555 Century Avenue
(上海纽约大学211教室, 上海市浦东新区世纪大道1555号)

ABSTRACT

Gaussian fields and their level sets are of significant mathematical interest, but they also appear in many other areas of science: oceanography, cosmology and engineering, just to name a few. In this talk I will give an gentle introduction to the geometric theory of smooth Gaussian fields, will discuss conjectures about their connection with percolation models and will talk about recent progress in this area.

BIOGRAPHY

Dmitry Beliaev is a professor of mathematics at the Mathematical Institute, University of Oxford. He received his Ph.D. in 2005 at the Royal Institute of Technology (Stockholm) under the supervision of Prof. S. Smirnov. After that he was a Veblen Instructor at Princeton University and IAS and later on an assistant professor at Princeton University. His research interests range from potential theory and complex analysis to probability and mathematical physics.