Geometry Seminar Tuesday, May 3, 2011 Room 201 WWH at 6:00 P.M.

Typical polytopes in random mosaics

Rolf Schneider University of Freiburg

A locally finite point set in n-dimensional Euclidean space generates a mosaic, consisting of the Dirichlet (or Voronoi) cells. A locally finite system of hyperplanes also generates a mosaic, in the obvious way. If the system of points or hyperplanes is random, we obtain a random mosaic. Under suitable assumptions (Poisson processes with translation invariant distributions), the typical cells and faces in such a random tessellation become accessible to geometric investigation, with regard to either combinatorial or shape properties. I report on recent results, mostly obtained in joint work with Daniel Hug.

For more information please visit the seminar website at: http://www.math.nyu.edu/seminars/geometry_seminar.html.