Seminar/Talk

The jewel and the two dials of the ideal Poisson–Voronoi Tessellation

Matteo D'Achille
Université de Lorraine

Host: Laszlo Erdös & Jan Maas

We will discuss low-intensity limits of Poisson-Voronoi tessellations, a.k.a. ideal Poisson-Voronoi tessellations (IPVTs). In real hyperbolic space of dimension $d\geq 2$, a simple Poissonian description of the cell containing the origin (the zero cell) allows one to study fine properties of all the tiles of the IPVT. This Poissonian description of the IPVT remains fairly simple in other settings, such as the infinite regular tree and the Cartesian product of hyperbolic planes. Time permitting, Ill also discuss a surprising application to Bernoulli-Voronoi percolation. The talk is based on a paper in collaboration with Nicolas Curien, Nathanal Enriquez, Russell Lyons, and Meltem nel (Ann. Probab.), on 2412.00822, on 2511.23317 in collaboration with Jan Grebk, Ali Khezeli, Konstantin Recke and Amanda Wilkens, and on work in progress with Ali Khezeli.It will also include a physical realization of the zero cell of the IPVT in three dimensional hyperbolic space in the conformal ball model (jewel).

Monday, May 18, 2026 05:00pm - 06:00pm
Central Bldg / O1 / Mondi 2a (I01.O1.008)

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