

Geometry, Groups and Dynamics/GEAR Seminar
(held at the Illinois hub of GEAR)

12:00 pm, Thursday, March 2, 2017, 243 Altgeld Hall

Malik Obeidin (Illinois)

Hyperbolic volumes of random links

Abstract: What does a random link look like? There have been a few different proposed models for sampling from the set of links -- in this talk, I will describe a model based on random link diagrams in the plane. Such diagrams can be sampled uniformly on a computer due to the work of Gilles Schaeffer, so one can experiment with various invariants of links with the topology software SnapPy. I will present data showing what happens with some of the different invariants SnapPy can compute, and I will outline a proof that the hyperbolic volume of the complement of a random alternating link diagram is asymptotically a linear function of the number of crossings. In contrast, for nonalternating links, I will show why the diagrams we get generically represent satellite (and hence nonhyperbolic) links.

[Video](#)