

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

12:00 pm, Thursday, March 9, 2017, 243 Altgeld Hall

Mark Bell (Illinois)

Polynomial-time curve reduction

Abstract: A pair of curves on a surface can appear extremely complicated and so it can be difficult to determine properties such as their intersection number. We will discuss a new argument that, when the curve is given by its intersections with the edges of an ideal triangulation, there is always a "reduction" to a simpler configuration in which such calculations are straightforward. This relies on finding an edge flip or a (power of a) Dehn twist that decreases the complexity of a curve by a definite fraction.

[Video](#)