

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

**Tuesday, February 24, 2015, 1:00 pm in 243 Altgeld Hall**

Mark Bell (University of Warwick)

Planes, Trains & Automorphisms

Abstract: We will discuss a new approach using train tracks to solve the conjugacy problem in the automorphism group of a punctured plane. This solution relies on the action of the mapping class group on the space of measured laminations and has several connections to veering triangulations of fibred 3-manifolds. Unlike techniques in braid groups using Garside structures, not only is this algorithm effective it also generalises to all higher genus surfaces.

[Video](#)