

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

12:00 pm, Tuesday, December 8, 2015, 345 Altgeld Hall

Witsarut Pho-On (Illinois)

Infinite unicorn paths and Gromov boundaries

Abstract: I will provide direct elementary proofs of results of Klarreich and Schleimer identifying the Gromov boundaries of the arc and curve graph and the arc graph, respectively. The proofs use the tool called unicorn paths, developed by Hensel, Przytycki and Webb in their elementary proofs of hyperbolicity of the arc and curve graph and the arc graph. More precisely, I extend the notion of unicorn paths between two arcs to the case where one arc is replaced by a bi-infinite geodesic asymptotic to a lamination. Using these modified unicorn paths, I define homeomorphisms from some spaces of laminations to the Gromov boundaries of the arc and curve graph and the arc graph which are also equivariant under mapping class groups.

[Video](#)