Mathematics, Statistics, and Computer Science **@ UIC**

Geometry, Topology and Dynamics Seminar

Sublinear boundaries of CAT(0) spaces and CAT(0) groups

Yulan Qing (University of Toronto)

Abstract: Croke and Kleiner showed that the visual boundary of CAT(0) groups such as right-angled Artin groups (RAAG) is not well-defined, since quasi-isometric CAT(0) spaces can have non-homeomorphic boundaries. For any sublinear function, we consider a subset of the visual boundary called *sublinear boundary* and show that it is a QI-invariant. That is to say, the sublinear boundary of a CAT(0) group is well-defined. In the case of right-angled Artin group, we show that the Poisson boundary is naturally identified with the (log t) boundary. This talk is based on projects with Kasra Rafi and Giulio Tiozzo.

Monday, April 29 at 3:00 PM in 636 SEO