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

12:00 pm, Tuesday, March 13, 2018, 243 Altgeld Hall
Vicky Hoskins (Freie Universität Berlin)
Group actions on quiver varieties and applications

Abstract: We study two types of actions on King's moduli spaces of quiver representations over a field k, and we decompose their fixed loci using group cohomology in order to give modular interpretations of the components. The first type of action arises by considering finite groups of quiver automorphisms. The second is the absolute Galois group of a perfect field k acting on the points of this quiver moduli space valued in an algebraic closure of k; the fixed locus is the set of k-rational points, which we decompose using the Brauer group of k, and we describe the rational points as quiver representations over central division algebras over k. Over the field of complex numbers, we describe the symplectic and holomorphic geometry of these fixed loci in hyperkaehler quiver varieties using the language of branes. This is joint work with Florent Schaffhauser.

Video