



## Mathematics and CS Seminar

# Kirwan surjectivity for quiver varieties

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A classical result of Kirwan proves that cohomology ring of a quotient stack surjects onto the cohomology of an associated GIT quotient via the natural restriction map. In many cases the cohomology of the quotient stack is easy to compute so this often yields, for example, generators for the cohomology ring of the GIT quotient. In the symplectic case, it is natural to ask whether a similar result holds for (algebraic) symplectic quotients. Although this surjectivity is thought to fail in general, it is expected to hold in many cases of interest. In recent work with Tom Nevins (UIUC) we establish this surjectivity result for Nakajima's quiver varieties. An important role is played by a new compactification of quiver varieties which arises from the study of graded representations of the preprojective algebra.

**Wednesday, May 3, 2017 01:45pm - 03:45pm**

Seminar room Big Ground floor / Office Bldg West (I21.EG.101)



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