

# Stanford Algebraic Geometry — Seminar —

## LIE ALGEBRA ACTIONS ON THE COHOMOLOGY OF HYPERQUOT SCHEMES

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### Abstract

I will describe old results and current work on constructing  $sl_n$  actions on the cohomology of hyperquot schemes on  $\mathbb{P}^1$ . The hyperquot schemes parametrize full flags of subsheaves on the projective line and compactify the spaces of morphisms from  $\mathbb{P}^1$  to the  $sl_n$  flag variety. They provide one of the simplest settings for studying Lie algebra representations on the cohomology of various parameter spaces for sheaves, a subject inaugurated by Nakajima's construction of an action of the Heisenberg algebra on the cohomology of the Hilbert scheme of points on a surface.

Tuesday, April 24

noon (Note unusual date and time! Feel free to bring lunch.)

Room 383-N

<http://math.stanford.edu/ag/s0607/>