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*A Geometric Realization of the Basic Representation of Affine  $sl(n)$*

In their 1990 paper, ten Kroode and van de Leur gave explicit realizations of the basic representation of affine  $gl(n)$  and  $sl(n)$ . In particular, there exists one realization for each partition of  $n$  (with the two extreme cases being the well-known principal and homogeneous realizations). In this talk, we will give a geometric interpretation of the principal realization. Our construction is given in terms of the equivariant cohomology of the Hilbert scheme of points in the plane and Nakajima quiver varieties.