

Northeastern University



Mathematics Department

Geometry, Physics, and Representation Theory Seminar

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Thursday, April 11, 2:00-3:00 pm, Lake Hall 509

Homology of affine Grassmannian and quantum cohomology

Abstract

Let G be a simply connected complex linear algebraic group, and X be a smooth projective G -variety. In this talk, we will construct an action of the equivariant homology of the affine Grassmannian Gr_G on the G -equivariant quantum cohomology of X . The construction uses shift operators in quantum cohomologies. When $G = \mathrm{SL}(2)$ and X is the projective line, this action is compatible with the Peterson isomorphism. Joint work with Alexander Braverman.