

Positivity in the S^1 -equivariant cohomology of type A Peterson varieties

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Abstract

In this talk I'll discuss positivity in the S^1 -equivariant cohomology $H_{S^1}(\mathcal{Y})$ of type A Peterson varieties. In this context positivity means there exists a module basis of an algebra such that products of basis elements are “positive” linear combinations of other basis elements for some appropriate notion of “positive.” In addition to positivity results I'll give a review of Peterson varieties and some of the methods used to study them.

Keywords: algebra, cohomology, Peterson variety.