

Topology of Commuting Matrices

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Abstract:

Let G denote a Lie group. In this talk we will present recent results on the homotopy and cohomology of certain classifying spaces built out of commuting elements in G . Models for these spaces will be given which involve homotopy colimits over topological posets. We will describe cohomology calculations for the case of the general linear groups over the complex numbers using multisymmetric polynomials. This is joint work with José Manuel Gómez.