

Front Range Algebra, Geometry and Number Theory Seminar

Toroidal orbifold compactifications of reductive groups and moduli of framed bundles

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We will introduce a class of moduli problems for any reductive group G , whose moduli stacks provide us with (toroidal) equivariant compactifications of G . All toric varieties and orbifolds are special cases of these, as are the "wonderful compactifications" of semi-simple groups of adjoint type constructed by De Concini - Procesi. Our construction further provides a canonical orbifold compactification for any semi-simple group. We shall further discuss how these moduli spaces are related to the concept of non-abelian symplectic cutting in symplectic geometry, and indicate connections with moduli spaces arising in gauge theory. This is joint work with Michael Thaddeus (Columbia).

Thursday March 31st 2011
3:00-5:00 p.m.
MATH 350