Geometric invariants in the equivariant algebraic K theory of spaces

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The algebraic K-theory of a manifold is a space whose homotopy groups record interesting geometric invariants like Wall's finiteness obstruction and Whitehead torsion. When the manifold has an action by a group G, Malkiewich and Merling constructed a lift of the algebraic K theory of M to a genuine G spectrum. In this talk I will discuss joint work with Calle and Mejia where we explain how equivariant refinements of Wall finiteness and Whitehead torsion fit into this framework.

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