Algebra/Topology Seminar

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Sheaf Euler Characteristics in Cominuscule Quantum K-Theory

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1:15 p.m. in ES-143

ABSTRACT. Let $X = G/P$ be a flag variety with the action of a torus $T = (\mathbb{C}^*)^n$. Its T-equivariant quantum K-theory ring is a deformation of the Grothendieck ring of T-equivariant coherent sheaves on X. We will present a brief overview of these rings before we discuss three curious properties of the equivariant quantum K-theory ring for X cominuscule. These properties relate the ring structure to sheaf Euler characteristics and to the geometry of rational curves in X. This is joint work with Anders Buch.