

Speaker: Quadrics, k -planes and Clifford algebras

Title: Optimal strong approximation for quadratic forms

Abstract: Quadrics and orthogonal Grassmannians are intimately linked to the study of Spin groups. One incarnation of this connection is a noncommutative algebra called the Clifford algebra. Kuznetsov showed that for any quadric fibration Q over a smooth base S , the derived category of modules over the sheaf of even Clifford algebras on S embeds into the derived category of Q by constructing a degeneration of Spin-equivariant vector bundles called spinor bundles. In this talk, we explain how to generalize this to relative orthogonal Grassmannian fibrations, and its relation to semiorthogonal decompositions for Fano varieties of k -planes on complete intersections of two quadrics.