

Algebra/Topology Seminar

STEFAN GILLE

University of Alberta, Canada

ON THE ROST NILPOTENCE PROPERTY OF THREEFOLDS

Tuesday, March 22, 2016, **1:10–1:50** p.m. in ES-143

ABSTRACT. If the motive of a variety satisfies Rost nilpotence then one can “descend” a motivic decomposition from the one over the algebraic closure. For instance, quadrics have this property, and Rost used it to decompose the motif of a norm quadric. This result plays a crucial role in Voevodsky’s proof of the Milnor conjecture. In my talk I will first discuss Rost nilpotence and then present some recent results on threefolds over fields of characteristic 0.

THOMAS CREUTZIG

University of Alberta, Canada

SCHUR-WEYL DUALITY FOR HEISENBERG COSET VERTEX ALGEBRAS

Tuesday, March 22, 2016, **2:00–2:40** p.m. in ES-143

ABSTRACT. The theory of vertex algebras has many similarities with classical Lie theory. I plan to present a Schur-Weyl type duality for commuting pairs of sub vertex algebras inside a larger vertex algebra. I will also outline how this will yield new vertex algebras with potentially interesting and non semi-simple representation theory.