

ALGEBRA
SEMINAR

Mod 4 invariants of line-bundle-valued quadratic forms

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Abstract: Alongside rapid advances in algebraic geometry, algebraic topology, and K-theory, the 1970s saw the initiation of the study of quadratic forms over general algebraic varieties and the emergence of the theory of line bundle-valued quadratic forms. The theory of invariants of such forms remains quite a mystery. In this talk, I'll give an introduction to line bundle-valued forms, similarity transformations, and classical cohomological invariants of quadratic forms. I'll present a new étale cohomological invariant for line bundle-valued forms that generalizes the Clifford invariant. This invariant is related to a four-fold cover of the orthogonal similitude group.

Tuesday, September 8, 2009, 4:00 pm
Mathematics and Science Center: W303

MATHEMATICS AND COMPUTER SCIENCE
EMORY UNIVERSITY