

Daniel Krashen

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will speak on

Quadratic Forms and the u-invariant of Fields

ABSTRACT:

The u-invariant of a field gives information about how large a homogeneous quadratic polynomial may be with coefficients in a given field without having a nontrivial zero. Despite the fact that these invariants are reasonably well understood for finite fields, global fields, function fields of complex varieties, and p -adic fields, many aspects of their behavior remains conjectural. In particular, the problem of computing the u-invariant of a rational function field of $K(x)$, if one knows the u-invariant of K is one of the outstanding open problems in the area. In particular, the case that K is a global field is completely open. In this talk I will describe work in progress, joint with David Harbater and Julia Hartmann, where we compute the u-invariant of $K(x)$ when K is a p -adic (p not 2) or more generally a “higher local field.”

MONDAY, 19 NOVEMBER 2007

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS