K-Theory, Quadratic Forms and Number Theory Seminar

Professor Detlev Hoffmann (TU Dortmund)

will speak on

Sums of squares invariants of rings

Fri 16th March 2012 at 2:00PM

Location: Mathematical Sciences Seminar Room (Ag 1.01)

Let R be a ring with identity. The level (resp. sublevel) of R is the smallest positive integer n such that -1 (resp. 0) can be written as a sum of n squares (resp. n+1 squares in a "unimodular" way), or infinity if such an n doesn't exist. The Pythagoras number of R is the smallest n such that each sum of squares in R can be represented as a sum of n squares or infinity if such an n doesn't exist. We present some old and some more recent results on these invariants with particular emphasis on noncommutative division rings and arbitrary commutative rings.

This talk is part of the **K-Theory, Quadratic Forms and Number Theory** series. For more, see
`https://maths.ucd.ie/seminars`