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## K-Theory, Quadratic Forms and Number Theory Seminar

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**Professor Nigel Boston (UCD)**

will speak on

**Random groups in number theory and topology**

Wed 17th September 2008 at 3:00PM

Location: Mathematical Sciences Seminar Room

In a recent Inventiones paper Dunfield and Thurston compared fundamental groups of random 3-manifolds and random discrete groups. Analogously, we develop a theory comparing certain random Galois groups and random  $p$ -groups. In particular, what is the probability that  $r$  relators chosen at random from a  $g$ -generator free group present a particular group? We make sense of and answer this question for  $p$ -groups. This leads to some mysterious mass formulae, some infinite groups that arise with nonzero probability, and applications to number theory.

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