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K-Theory, Quadratic Forms and Number Theory Seminar

Dr. Michael Tuite (NUI Galway)

will speak on

Vertex operator algebras on Riemann surfaces

Wed 4th May 2011 at 3:00PM

Location: Mathematical Sciences Seminar Room

A Vertex Operator Algebra (VOA) is essentially a rigorous formulation of chiral conformal field theory in theoretical physics. This talk describes recent progress in defining and computing the partition function and correlation functions for a VOA on a general Riemann surface formed by sewing together lower genus surfaces. We discuss recent results for the Heisenberg VOA (or bosonic string) for which the partition function can be computed by an application of the MacMahon Master Theorem from classical combinatorics. We also discuss modular properties of the partition function which are similar to those of Siegel modular forms.

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