HARVARD UNIVERSITY 17 Oxford Street Cambridge, MA 02138



Tuesday, May 12, 2020, at 10:00 (Boston) 15:00 (UK/Eire) 16:00 (C.Europe) 22:00 (China)

Mathematical Picture Language Seminar Jointly, with the Dublin Institute for Advanced Study Zoom at: https://harvard.zoom.us/j/779283357

Euclidean quantum field theory: Axioms and Automorphic Forms Werner Nahm, DIAS

Abstract: The partition functions of Euclidean quantum field theory can be described as functions on the moduli space of compact manifolds with Riemannian metric that have few generalized derivatives. The conventional derivative with respect to the metric yields the energy- momentum tensor. All fields can be described in an analogous fashion, but one has to introduce derivatives that can change the topology. This idea is tested for the (2,5) minimal model in two-dimensional conformal field theory, where the partition function yields a natural generalization of the Rogers-Ramanujan functions to arbitrary genus.

