Special Mathematical Physics Seminar

UNIVERSITY OF NOTRE DAME

Department of Mathematics

Speaker: David Radnell
Aalto University, Finland

Thursday, March 17, 2016
12:30 PM
127 Hayes-Healy Hall

Title: Some analytic and geometric problems in Conformal Field Theory

Abstract:

As well as vertex operator algebras, the mathematical formulation of conformal field in the 1980's introduced new geometric objects and operations. In particular, the infinite-dimensional moduli space of Riemann surface with parameterized boundaries, the sewing operation and the determinant line bundle. We will discuss, in a non-technical way, some open problems and partial solutions regarding the determinant line bundle as well as the right setting for defining correlation functions in CFT for genus greater than zero.