BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

CHIRAL DIFFERENTIAL OPERATORS FROM CURVED BETA-GAMMA

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March 2, 2016, 4:00 – 5:00pm
Math/Computer Science, Room B19
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

Abstract: We study local observables of a two-dimensional sigma-model describing holomorphic maps from a Riemann surface to a complex manifold. Costello has shown how to recover the Witten genus of the complex manifold by considering the partition function of this model. We show that quantization of local observables produces a sheaf of holomorphic factorization algebras on the target manifold. Our main result identifies this with the vertex algebra incarnation of differential operators; so-called chiral differential operators.

See `http://math.bu.edu/research/geom/seminar.html` or contact Siu Cheong Lau *lau@math.bu.edu* for more information.