

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

ELLIPTIC CHIRAL INDEX AND HOLOMORPHIC ANOMALY

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CCDS 365, Jan 24, 2024, 4-5pm

Tea: 3:45pm in Room 365

Abstract: We investigate a two-dimensional chiral analogue of the algebraic index theorem via the theory of chiral algebras. We construct a trace map on the elliptic chiral homology of the chiral $\beta - \gamma$ -bc system, and explain a chiral analogue of Hochschild-Kostant-Rosenberg theorem. A geometric renormalization theory for 2d chiral QFT is established, leading to a version of holomorphic anomaly equation.

See <http://math.bu.edu/research/geom/seminar.html> or contact Yu-Shen Lin (yslin@bu.edu) or Brian Williams (bwill22@bu.edu) for more information.