Volumes and intersection theory on moduli spaces of Abelian differentials.

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Abstract

Computing volumes of moduli spaces has significance in many fields. For instance, the celebrated Witten’s conjecture regarding intersection numbers on moduli spaces of Riemann surfaces has a fascinating connection to the Weil-Petersson volume, which motivated Mirzakhani to give a proof via Teichmüller theory, hyperbolic geometry, and symplectic geometry. In this talk I will introduce an analogue of Witten’s intersection numbers on moduli spaces of Abelian differentials to compute the Masur–Veech volumes induced by the flat metric associated with Abelian differentials. This is joint work with Moeller, Sauvaget, and Zagier (arXiv:1901.01785).

Wednesday, 27 March 2019
4:00 pm
Smith Hall 204
Tea and refreshments will be served at 3:45pm.

http://math.newark.rutgers.edu/~xiaowwan/Colloquium/