COMPACTIFICATION OF STRATA OF
ABELIAN DIFFERENTIALS

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111 Cummington Street, Boston

Tea: 3:45pm in Room 144

Abstract: Many questions about Riemann surfaces are related to study their flat structures induced from abelian differentials. Loci of abelian differentials with prescribed type of zeros form a natural stratification. The geometry of these strata has interesting properties and applications to moduli of complex curves. In this talk we focus on the question of compactifying the strata of abelian differentials from the viewpoints of algebraic geometry, complex analytic geometry, and flat geometry. In particular, we provide a complete description of the strata compactification over the Deligne-Mumford moduli space of stable pointed curves. The upshot is a global residue condition compatible with a full order on the dual graph of a stable curve. This is joint work with Bainbridge, Gendron, Grushevsky, and Moeller, based on arXiv:1604.08834.

See http://math.bu.edu/research/geom/seminar.html or contact Lino Amorim (lamorim@bu.edu) or Siu Cheong Lau (lau@math.bu.edu) for more information.