

Volumes of odd strata of quadratic differentials

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I will present a formula giving the Masur-Veech volumes of "completed" odd strata of quadratic differentials as a sum over stable graphs. This formula generalizes Delecroix-G-Zograf-Zorich formula in the case of principal strata. The coefficients of the formula are in this case intersection numbers of psi classes with the Witten-Kontsevich combinatorial classes; they naturally appear in the count of integer metrics on ribbon graphs with prescribed odd valencies. The study of the possible degenerations of these ribbon graphs allows to express the difference between the volume of the "completed" stratum and the volume of the stratum as a linear combination of volumes of boundary strata, with explicit rational coefficients. Several conjectures on the large genus asymptotics of volumes or distribution of cylinders follow from this formula. (joint work with E. Duryev and I. Yakovlev).

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