

Affine invariant manifolds and invariants in Teichmüller dynamics

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This mini-course starts with an introduction to the $GL(2, \mathbb{R})$ -action on the moduli space of flat surfaces and presents basic results on Teichmüller curves and on $GL(2, \mathbb{R})$ -orbit closures. Moreover, we introduce the characteristic invariants of the $GL(2, \mathbb{R})$ -dynamics, Masur-Veech volumes, Lyapunov exponents and Siegel-Veech constants. We conclude with recent results on algebraic estimates for Lyapunov exponents and on large genus asymptotics of these invariants.