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Ideal triangles, hyperbolic surfaces and the Thurston metric on Teichmüller space. (English) [Zbl 07442150]

Summary: These notes constitute an introduction to the hyperbolic geometry of surfaces, Teichmüller spaces and Thurston’s metric on these spaces. In particular, we survey several results on the behavior of stretch lines, a distinguished class of geodesics for Thurston’s metric and we point out several analogies between this metric and Teichmüller’s metric. Several open questions are addressed.

For the entire collection see [Zbl 1475.14003].

MSC:

- 30F60 Teichmüller theory for Riemann surfaces
- 32G15 Moduli of Riemann surfaces, Teichmüller theory (complex-analytic aspects in several variables)
- 57M50 General geometric structures on low-dimensional manifolds
- 53A35 Non-Euclidean differential geometry
- 53C22 Geodesics in global differential geometry

Keywords:

hyperbolic structure; Teichmüller space; Thurston boundary; Thurston metric; stretch line; Finsler structure