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THE THURSTON METRIC ON TEICHMÜLLER SPACE

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The Thurston metric is an asymmetric metric on Teichmuller Space defined using Lipschitz constants of maps between hyperbolic surfaces. This metric was introduced by Thurston in the late 80's, who showed this metric is geodesic, though geodesics are not necessarily unique, and induced by an asymmetric Finsler norm on tangent space. In this talk, I will give an overview of some of the key tools introduced by Thurston to study this metric. Then I will survey some recent advances in this field, particular on the coarse geometry of the geodesics in the Thurston metric, and some finer properties in the case of the punctured torus. This talk is based on joint work with David Dumas, Anna Lenzhen, Babak Modami, and Kasra Rafi.