

## Deformed Farey triangulation and Springborn operations

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The modular group acts by symmetries on the classical Farey triangulation. The embedding of the modular group into the isometry group of the hyperbolic plane allows a 1-parameter family of deformations. Using another embedding gives rise to a deformed Farey tessellation, which is intimately linked to  $q$ -deformed rational numbers, introduced by Morier-Genoud and Ovsienko. The geometric picture suggests to consider the set of  $q$ -rationals as a 1-dimensional circle packing. A new operation, a quadratic version of the Farey sum which we call the Springborn sum, naturally arises in this viewpoint. The construction of a 2-dimensional extension of the circle packing is work in progress. Joint with Perrine Jouteur and Olga Paris-Romaskevich.