VIRGINIE CHARETTE, Université de Sherbrooke, Sherbrooke, QC
Proper affine deformations of surface groups

Let Σ be a hyperbolic surface whose fundamental group is Schottky, such as the three-holed sphere or the once-punctured torus. Then $\pi_1(\Sigma)$ admits proper representations into the group of affine isometries of Minkowski 3-space, a remarkable fact first proved by Margulis. In joint work with Todd Drumm and Bill Goldman, we proved that the space of such proper representations, for the three-holed sphere, is entirely determined by a measure of signed Lorentzian displacement on the three boundary components. Moreover, each such action admits a fundamental domain, allowing us to offer a topological description of the quotient. We will discuss this result, and perhaps some work in progress on the one-holed torus.