

François Guéritaud: The convex core of quasifuchsian punctured-torus groups

A quasifuchsian punctured-torus group is defined as a discrete free subgroup of $PSL_2(\mathbb{C})$ generated by a, b where the commutator $[a, b]$ is parabolic, plus an (open) geometric condition. The corresponding hyperbolic 3-manifold M has a convex core K whose boundary consists of two pleated surfaces. We will explain how the two pleatings induce a canonical (topological) triangulation \mathcal{T} of the interior of K , and how \mathcal{T} can be turned into a “true” totally geodesic ideal triangulation via Rivin’s maximum volume principle.