

Fundamental polyhedra in the Einstein Universe

Virginie Charette, University of Sherbrooke

The Einstein Universe is the conformal compactification of Minkowski spacetime. Its group of conformal transformations displays a rich variety of dynamics, and includes groups with Schottky-type behavior. In dimension three, it contains "crooked surfaces", which are conformal compactifications of "crooked planes" (or anything in their $PO(3,2)$ -orbit). In this talk, we will discuss the Einstein Universe and its denizens, and describe how to obtain explicit examples of Lorentzian Schottky groups by constructing fundamental domains bounded by pairwise disjoint crooked surfaces.