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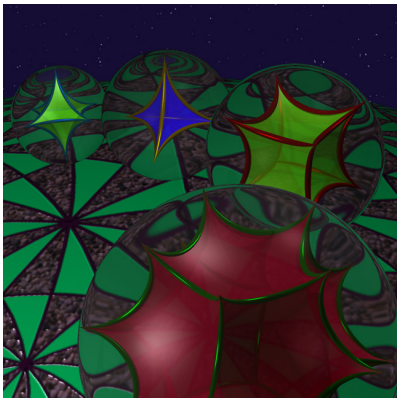

Naomi Bredon (UniFR)

On hyperbolic Coxeter polyhedra with dihedral angles $\pi/2$, $\pi/3$ and $\pi/6$

The classification of hyperbolic Coxeter polyhedra in dimensions beyond 3 is far from being complete. In a paper written in 1987, Prokhorov classified all hyperbolic Coxeter polyhedra with mutually intersecting facets and dihedral angles $\pi/2$ and $\pi/3$. Motivated by the work of Felikson and Tumarkin who constructed eight new manifolds using this classification, and inspired by the works of Prokhorov and Allcock, I developed an algorithm to classify all hyperbolic Coxeter polyhedra with mutually intersecting facets and dihedral angles $\pi/2, \pi/3$ and $\pi/6$. In this talk, I will give an overview of known classification results, present the method to construct non-compact hyperbolic Coxeter polyhedra with mutually intersecting facets and given dihedral angles, and discuss developments for the future.