

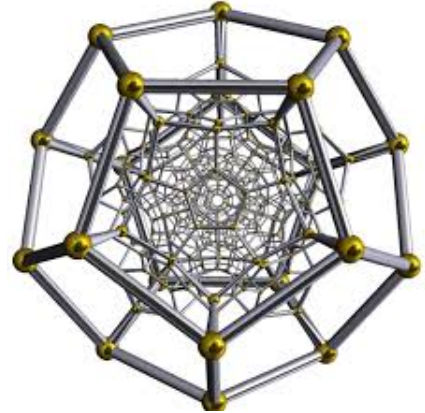
Oberseminar Geometrie

Department of Mathematics

University of Fribourg

Physics 2.52

Wednesday November 11, 2020, 10:20



NAOMI BREDON (UNIFR)

On the minimal growth rate of cocompact Coxeter groups in $\text{Isom}\mathbb{H}^4$

For $n = 2, 3$, the fundamental domain of the compact hyperbolic n -orbifold of minimal volume is related to the Coxeter group of smallest growth rate among all cocompact Coxeter groups acting on \mathbb{H}^n . The Coxeter group with symbol $[5,3,3,3]$ is commensurable to the fundamental group of the smallest orbifold among all arithmetic compact orientable 4-orbifolds.

In this talk, we will give the tools to prove that this Coxeter group has minimal growth rate among all cocompact Coxeter groups acting on \mathbb{H}^4 . We will use some classification results for cocompact hyperbolic Coxeter groups, and some helpful comparison lemmas for Coxeter graphs.

This is joint work with Ruth Kellerhals.