
BERN-FRIBOURG GRADUATE SEMINAR

a seminar for Master and PhD students

Thursday 24th November, 2022: 17:15 - 18:00

Room B5, Exakte Wissenschaften, Bern

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Hyperbolic Coxeter groups and their growth rates

Abstract

For $n \leq 9$, the hyperbolic n -orbifolds of minimal volume are well known: their fundamental domains are related to Coxeter n -simplex-groups Γ_n . In this talk, we prove that Γ_n has minimal growth rate among all non-cocompact Coxeter groups in $\text{Isom}\mathbb{H}^n$. The proof uses comparison lemmas at the level of Coxeter graphs, together with classification results for simple polyhedra and analysis of vertex-figures for vertices lying on $\partial\mathbb{H}^n$. We also mention related questions and ongoing projects.