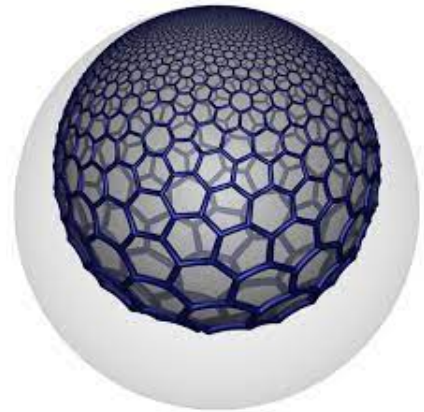


Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Physics 2.52
Wednesday June 1, 2022, 10:20



MATHIAS BLAISE (UNIFR)

A lower volume bound for cusped hyperbolic manifolds

We present a result of Adams, Meyerhoff and Kellerhals about a lower volume bound for non-compact hyperbolic manifolds depending only on the dimension n of the manifold, the number of cusps m and the ideal regular simplex volume ν_n .

To achieve this goal, we make essential use of a density argument for (horo-) ball packings in Euclidean and hyperbolic space and explicit formulae for the simplicial density function.

Using this result, we present an upper bound for the number of cusps in an even-dimensional hyperbolic manifold in terms of the Euler characteristic.