Bern-Fribourg Graduate Seminar

a seminar for Master and PhD students

Thursday 5th May, 2022: 17:15 - 18:00

Room 2.52, Perolles 08, Fribourg

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Cannon's Conjecture; when Geometric Group Theory meets Analysis

Abstract

In 1998 Cannon made a conjecture that is now one of the main motivations for questions concerning rigidity of quasisymmetric maps. It is a beautiful example of the interplay between group theory and analysis. The conjecture states that hyperbolic groups which act nicely on three-dimensional hyperbolic space can be characterised with their boundary at infinity. We will introduce Cayley graphs of groups, study them as metric spaces and see how to get a boundary at infinity of a group. The boundary will also be a metric space that we will study up to quasisymmetry.