

On the Martin boundary for hyperbolic groups

Manuel Stadlbauer (manuel.stadlbauer@gmail.com)

Universidade Federal do Rio de Janeiro

Abstract. In this talk, I present recent progress in the geometrization of the Martin boundary of random walk on a hyperbolic group with ψ -mixing increments. This setting is equivalent to consider a random walk driven by an expanding dynamical system and allows to identify the Martin boundary with a certain subset of sigma-finite conformal measures, which is a well-known object in the theory of dynamical systems, but less known in probability theory. Moreover, as the group is hyperbolic, it is possible to identify the Martin boundary with the visual boundary of the group.