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Self-similar groups and divergence

Abstract
In this talk, I will start by discussing the class of self-similar groups. These are groups that act on rooted trees in a specific way, and include some examples with interesting properties. For instance, the first group that was known to have intermediate growth belongs to this class. I will then talk about divergence of groups, a quasi-isometry invariant that measures how difficult it is to connect two points avoiding a large ball around the identity. Finally, I will sketch the proof that the Basilica group, an example of self-similar group, has linear divergence.