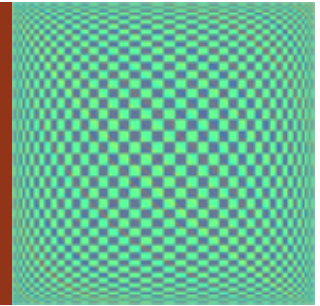




Centro de Matemática
Universidade do Porto



Seminar on Semigroups, Automata and Languages

About random subgroups of free groups

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Abstract: One may wonder what are the 'most frequent' properties of finitely generated subgroups of free groups. These subgroups can be represented by finite labeled graphs (their Stallings graphs), and this has been used a lot to solve algorithmic problems on subgroups of free groups. Stallings graphs lend themselves also to an asymptotic study of these subgroups, leading to a discussion of so-called generic properties.

I will discuss two important approaches to give meaning to the notion of randomness for subgroups of free groups. One is determined by drawing randomly a tuple of generators for the subgroup, and the other consists in drawing uniformly at random a Stallings graph. These two approaches bring to light different properties as generic.

If time permits, I will discuss at the end of the talk possible extensions of this study to subgroups of other, non-free infinite groups.

Date: Friday, 3 December 2021, 14:30

Place: Online Zoom meeting



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