

VIENNA SEMINAR

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Talk 1, Title: Inverse semigroups, groupoids and coarse geometry.

Abstract: In this talk I will outline the definitions and some basic results about inverse semigroups and groupoids and explain how they relate to each other as well as to coarse geometry. Beyond the definitions, this talk will be example driven: I will give some constructions using finitely generated groups, for example partial actions, that illustrate the ideas presented.

Talk 2, Title: Boundary a-T-menability for large girth expander graphs.

Abstract: In this talk I will give a detailed explanation of how it is possible to use partial actions of free groups to show that a certain groupoid associated with a large girth expander sequence is a-T-menable. I will relate these ideas to other coarse geometric properties and try to give some idea of why this notion of boundary a-T-menability is useful (mostly by considering Gromov's non-exact groups and some constructions presented in the first lecture).