

“Group Theory International” Online Seminar

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“Conjugacy separability of non-positively curved groups”

Thursday, March 31, noon (New York Time)

Conjugacy separability, along with residual finiteness, are two classical residual properties of groups, which measure how well a given infinite group can be approximated by its finite quotients. These properties can be viewed as algebraic analogues of solvability of the conjugacy problem and the word problem in the group respectively.

For many groups residual finiteness can be shown quite easily (e.g., all finitely generated linear groups are residually finite). Conjugacy separability, on the other hand, is much harder to prove, and until recently very few classes of conjugacy separable group were known.

During the talk I will discuss some approaches for establishing conjugacy separability of "non-positively curved" groups. I will present a proof that free groups are conjugacy separable and will outline an argument for showing that right angled Artin groups are conjugacy separable. I will then explain how the groundbreaking results of Haglund-Wise and Agol can be used to prove conjugacy separability of other large classes of groups (such as virtually compact special hyperbolic groups).

Next presentation: **Apr 14, Enric Ventura** *(Universitat Politecnica de Catalunya, Spain)*

