

LIE GROUPS
WITH A SMALL SPACE OF METRIC STRUCTURES

Fudan Topology Seminar

Speaker: Gabriel Pallier
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Time: Thur, Oct. 13, 2022 14:30 - 15:30

Meeting Zoom ID: 853 0188 1524 Password: Fudan2022

Abstract: In this talk we will consider a family of solvable, non-nilpotent Lie groups, including the three-dimensional group SOL. On such a group, any pair of left-invariant Riemannian metrics are found to be roughly similar: after multiplying one of them by a suitable multiplicative constant, they will differ by at most a bounded amount. This allows one to reformulate various earlier results about the quasiisometries of these groups in a common framework. I will compare this result with a recent theorem of Oregon-Reyes, giving an opposite conclusion when considering non-elementary word-hyperbolic groups: the latter are found to have large spaces of metric structures. Joint work with Enrico Le Donne and Xiangdong Xie.