Does "ax + b" stand for the solvable analogue of $SL_2(\mathbb{R})$ in deformation theory ?

vendredi 19 octobre 2018 09:00 (50 minutes)

Let G be a Lie group, H a closed subgroup of G and Γ a discontinuous subgroup for the homogeneous space X = G/H, which means that Γ is a discrete subgroup of G acting properly discontinuously and fixed point freely on X. For any deformation of Γ , the deformed discrete subgroup may fail to act discontinuously on X, except for the case when H is compact.

The subject of the talk is to emphasize this specific issue and to deal with some questions related to the geometry of the related parameter and deformation spaces, namely the local rigidity conjecture in the nilpotent setting. When G is semi-simple, the analogue of the Selberg-Weil-Kobayashi rigidity theorem in the non-Riemannian setting is recorded, especially the role of the group $SL_2(\mathbb{R})$ as a fake twin of the solvable "ax + b" is also discussed.

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