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FOLIATIONS FORMED BY GENERIC COADJOINT ORBITS OF A CLASS OF REAL SEVEN-DIMENSIONAL SOLVABLE LIE GROUPS

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Abstract. In this paper, we consider exponential, connected and simply connected Lie groups which are corresponding to seven-dimensional Lie algebras such that their nilradical is a five-dimensional nilpotent Lie algebra $\mathfrak{g}_{5,2}$ given in Table 1. In particular, we give a description of the geometry of the generic orbits in the coadjoint representation of some considered Lie groups. We prove that, for each considered group, the family of the generic coadjoint orbits forms a measurable foliation in the sense of Connes. The topological classification of these foliations is also provided.

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