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On Riemann-Poisson Lie groups. (English) [Zbl 07285962](#)
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Summary: A Riemann-Poisson Lie group is a Lie group endowed with a left invariant Riemannian metric and a left invariant Poisson tensor which are compatible in the sense introduced in [*M. Boucetta*, *Differ. Geom. Appl.* 20, No. 3, 279–291 (2004; [Zbl 1061.53058](#))]. We study these Lie groups and we give a characterization of their Lie algebras. We give also a way of building these Lie algebras and we give the list of such Lie algebras up to dimension 5.

MSC:

[53A15](#) Affine differential geometry
[53D17](#) Poisson manifolds; Poisson groupoids and algebroids
[22E05](#) Local Lie groups

Keywords:

Lie group; Poisson manifolds; Riemannian metric

Full Text: [DOI](#) [arXiv](#)

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