Info

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Semi-simple $\mathbb{R}$-Lie groups

Let G be a connected semi-simple Lie group. Then G is **compact** $\iff$ the Killing form on $\mathrm{Lie}(G)$ is **negative-definite**.

Current note has 1 direct children and 1 total descendants.

- structures based on sets
  - manifolds
    - $\mathbb{R}$-manifold group (Lie groups)
      - Semi-simple $\mathbb{R}$-Lie groups
        - Semi-simple $\mathbb{R}$-Lie groups of dimension 6

And it has 18 siblings.

- structures based on sets
  - manifolds
    - $\mathbb{R}$-manifold group (Lie groups)
      - Adjoint representation of a Lie group
      - Conjugation action of a Lie group on itself
      - Classification of Lie groups
      - Compact Lie groups
      - Connected Lie groups with discrete center
      - Connected Lie groups with non-surjective exponential map
      - Discrete subgroups of Lie groups
      - Smooth maps onto a Lie group
      - Lie groups with surjective exponential map
      - Maurer-Cartan form
      - Left-invariant Lagrangian on a Lie group
      - Lie algebra of a lie group
      - Bi-invariant metrics on Lie groups
      - Left invariant Riemannian metric on a Lie group
      - Semi-simple $\mathbb{R}$-Lie groups
      - Almost simple groups
      - Virtual subgroups of Lie groups
      - Lie group with dilations