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Reductive homogeneous spaces

Definition. Reductive homogeneous spaces

A homogeneous space ${}^{G}/_{H}$ is **reductive** if there is a subspace $\mathfrak{m} \leq \mathfrak{g} := \mathrm{Lie}(G)$ such that

$$\underbrace{\mathfrak{g}}_{\mathrm{Lie}(G)} = \underbrace{\mathfrak{h}}_{\mathrm{Lie}(H)} + \mathfrak{m}$$

which is Ad_H-invariant

$$\forall g \in H, \mathrm{Ad}_g(\mathfrak{m}) \leq \mathfrak{m}$$

[1]

Current note has 0 direct children and 0 total descendants.

- structures based on sets
  - manifolds
    - Homogeneous manifold
      - Reductive homogeneous spaces

And it has 8 siblings.

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1. cis610-18-sl18.pdf ↩