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Virtual subgroups of Lie groups

Definition. Virtual subgroups of Lie groups

A **virtual subgroup** of a Lie group G is an injective smooth homomorphism from some Lie group H to G

$$H \hookrightarrow G$$

[1]

A *virtual subgroup* is of two types:

- **closed subgroup**, that is, if the image of H is closed in $G \iff$ it is properly embedded in G
- not an embedded, but **immersed subgroup**

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1. [mat.univie.ac.at/~cap/files/LieGroups.pdf#page=22.00](#) ↩