Invariants cones and transitivity for semigroups in semisimple Lie group

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Abstract

Let G be a connected Lie group which has a transitive representation on $\mathbb{R}^n$ and $S \subset G$ be a semigroup with a nonempty interior. We obtain necessary and sufficient conditions for the existence of the S-invariant cones in $\mathbb{R}^n$. As consequence we study controllability of bilinear control system.

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