

Stable actions and semi-direct products of Lie algebras
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Abstrakt:

Let V be a finite-dimensional representation of a reductive Lie algebra \mathfrak{g} . Then one can build another Lie algebra, a semi-direct product $\mathfrak{g} \ltimes V$, where V is an Abelian ideal, and try to describe the symmetric invariants of this non-reductive Lie algebra. In case of a stable action (where generic orbits are closed) the task does not look entirely hopeless.