

GAP Package CKForms

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The CKForms package is used for finding standard compact Clifford-Klein forms of a non-compact homogeneous space G/H where G is a simple linear Lie group and H is a non-compact reductive Lie subgroup of G .

The current version of this package is version 0.3, released on 2018-12-29. For more information, please refer to the package manual. There is also a README file.

Dependencies

This package requires GAP version ≥ 4.10 .

The following other GAP packages are needed:

- sla ≥ 1.2
- CoReLG ≥ 1.20

Authors

- Maciej Bocheński, email: mabo@matman.uwm.edu.pl, Faculty of Mathematics and Computer Science, University of Warmia and Mazury in Olsztyn
- Piotr Jastrzębski, email: piojas@matman.uwm.edu.pl, Faculty of Mathematics and Computer Science, University of Warmia and Mazury in Olsztyn
- Aleksy Tralle, email: tralle@matman.uwm.edu.pl, Faculty of Mathematics and Computer Science, University of Warmia and Mazury in Olsztyn

Abstract

In this package we develop algorithms generating triples $(\mathfrak{g}, \mathfrak{h}, \mathfrak{l})$ of lie algebras (\mathfrak{h} and \mathfrak{l} are subalgebras of \mathfrak{g}) such that the corresponding triples of Lie groups (G, H, L) fulfill some necessary conditions required for triples inducing standard compact Clifford-Klein forms. The program is used for searching for standard compact Clifford-Klein forms.

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Feedback

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