

# 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 1.1, released on 2019-01-11. For more information, please refer to the package manual. There is also a README file.

## Dependencies

This package requires GAP version  $\geq 4.10$ .

The following other GAP packages are needed:

- sla  $\geq 1.2$
- CoReLG  $\geq 1.20$

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## 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

For bug reports, feature requests and suggestions, please use the issue tracker.