

# GAP Package CKForms

## GAP Package CKForms

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 2.0, released on 2021-06-06. 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  $\geq 1.5.3$
- CoReLG  $\geq 1.54$

## 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.

## Copyright

CKForms Package is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

## Feedback

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