

# GAP 4 Package RingsForHomalg

**RingsForHomalg — Rings in External Computer Algebra Systems for  
the GAP-Package homalg**

Version 2008.05.23

May 2008

**Mohamed Barakat**

**Mohamed Barakat** — Email: [mohamed.barakat@rwth-aachen.de](mailto:mohamed.barakat@rwth-aachen.de)  
— Homepage: <http://www.math.rwth-aachen.de/~barakat>  
— Address: Lehrstuhl B für Mathematik, RWTH Aachen, Templer-  
graben 64, 52056 Aachen, Germany

## **Copyright**

© 2008 by Mohamed Barakat, Simon Goertzen and Markus Lange-Hegermann

This package may be distributed under the terms and conditions of the GNU Public License Version 2.

# Contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
1.1	Philosophy . . . . .	4
1.2	Overview over this manual . . . . .	4
<b>2</b>	<b>Installation of the RingsForHomalg-Package</b>	<b>5</b>
<b>3</b>	<b>Examples</b>	<b>6</b>

# Chapter 1

## Introduction

### 1.1 Philosophy

This package is about how to implement rings for the GAP package homalg. To be written further.

### 1.2 Overview over this manual

Chapter 2 describes the installation of this package. *More text on other chapters to be written.*

Finally, Chapter 3 shows instructive examples for the usage of this package. The main reference for the Maple implementation is [\[BR\]](#).

## Chapter 2

# Installation of the RingsForHomalg-Package

To install this package just extract the package's archive file to the GAP `pkg` directory.

By default the RingsForHomalg package is not automatically loaded by GAP when it is installed. You must load the package with `LoadPackage("RingsForHomalg")`; before its functions become available.

Please, send us an e-mail if you have any questions, remarks, suggestions, etc. concerning this package. Also, I would like to hear about applications of this package.

Mohamed Barakat and Simon Goertzen

## Chapter 3

### Examples

Here comes text.

# References

- [BR] Mohamed Barakat and Daniel Robertz. homalg – A meta-package for homological algebra. accepted for publication in Journal of Algebra and its Applications. ([arXiv:math.AC/0701146](#) and [http://wwwb.math.rwth-aachen.de/homalg](#)). <sup>4</sup>

# Index

RingsForHomalg, [5](#)