

## *swMATH and other information services*

*swMATH* is not the only information service for mathematical software. There are several online portals which contain particular information on software for a certain mathematical research area. In contrast, *swMATH* aims at being the first software information service which covers all mathematical areas and, in addition, reveals interconnections between different mathematical and applied fields by systematically linking software with relevant publications.

A different strategy is implemented in the ORMS project ("Oberwolfach References on Mathematical Software", <http://orms.mfo.de/about>), which is carried out by the Mathematisches Forschungsinstitut Oberwolfach. ORMS contains a limited number of high-quality software packages which have been manually selected in cooperation with an international advisory board. Links to ORMS packages are provided in *swMATH*.

*swMATH* is a joint project of Mathematisches Forschungsinstitut Oberwolfach (MFO) and FIZ Karlsruhe.

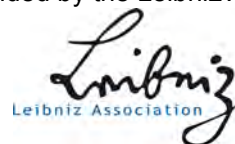


The project is supported by several cooperation partners:

Zuse Institute Berlin (ZIB), DFG Research Center MATHEON, Weierstrass Institute for Applied Analysis and Stochastics (WIAS) and Felix Klein Center for Mathematics at the University of Kaiserslautern.



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mathematical software

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## What is swMATH?

swMATH is a novel information service for mathematical software. It offers open access to a comprehensive database with information on mathematical software and provides a systematic collection of references to software-relevant mathematical publications.

### Linking software and articles

For each software package contained in swMATH, references to peer-reviewed mathematical publications are provided which refer to this software; in particular, all such articles referenced in *Zentralblatt MATH* are listed.

There are two kinds of software-relevant articles:

- articles explicitly describing a certain software package (methods, implementation details, user manuals etc.);
- articles referring to a software as a tool for achieving new results in mathematical research or applications.

By systematically linking mathematical software and publications, swMATH provides the potential software user with information on the actual usage of a software which is hard to find elsewhere.

Moreover, software developers benefit from the systematic collection of literature references to their work by an independent institution and can gain interesting insights about the dissemination and the usefulness of their software.

## The swMATH prototype

Building the information service swMATH is the subject of a 3-year project which is funded by the Leibniz Association. The web application will be released by the end of 2013.

A preliminary version of swMATH is already available online:

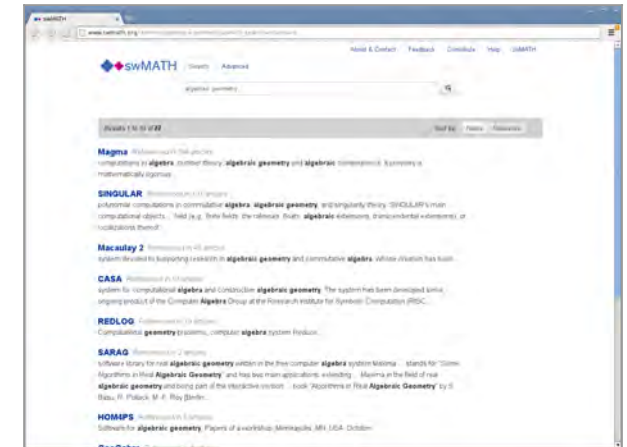
<http://www.swmath.org>

We invite everyone with an interest in mathematical software to test and evaluate the swMATH prototype.

*Any kind of feedback is highly appreciated!*



swMATH start page with simple and advanced search functionalities.



The search results are displayed in a list view and can be sorted either by name or by relevance.

The software detail page contains all available information about a certain software package, including a short description, the software authors and a collection of references to relevant peer-reviewed publications.

