

# alsoMATH - A Database for Mathematical Algorithms and Software

**Wolfgang Dalitz<sup>1,\*</sup>, Wolfram Sperber<sup>2</sup>, Hagen Chrapary<sup>3</sup>**

<sup>1</sup>*Zuse Institute Berlin (ZIB), Germany*

<sup>2</sup>*Fachinformationszentrum Karlsruhe (FIZ Karlsruhe), Germany*

<sup>3</sup>*Fachinformationszentrum Karlsruhe (FIZ Karlsruhe), Germany*

\*Email: dalitz@zib.de

Mathematical publications are an important resource for the development of machine-based methods for mathematical knowledge management. This article describes the publication-based approach to improve the information and the access to two important classes of mathematical research, mathematical software and mathematical algorithms. The publication-based approach is based on analyzing links and the structure of mathematical publications. It has been used to build the swMATH service which provides comprehensive information about mathematical software and algorithms.

## References

- [1] swMATH *The database swMATH* (2014 - ), <http://swmath.org>
- [2] zbMATH *The database zbMATH* (1868 - ), <https://www.zbmath.org>
- [3] Gert-Martin Greuel, Wolfram Sperber *swMATH – an information service for mathematical software*, in: Hong, Hoon (ed.) et al., *Mathematical software – ICMS 2014*, 4th International Congress, Seoul, South Korea, ICMS2014, August 5–9 2014. Proceedings. Springer, Lecture Notes in Computer Science, 8592 (2014), 691-701,