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the first resource for mathematics

A new interface for zbMATH

This August, zbMATH officially released its new web interface, accessible at zbmath.org. In the last weeks we received a lot of positive feedback, also from our reviewers, encouraging us to continue on our course of providing a modern and user-friendly infrastructure for the mathematical community. We would like to take this newsletter as an opportunity to present to our reviewers our motivations and the main novelties of the new zbMATH interface.

In our opinion, it becomes increasingly important for infrastructure services like zbMATH to provide information going beyond a single review or a list of publications connected with a certain mathematical phrase. The need to answer questions related to scientific networks, authorships and semantic interrelations requires the aggregation of additional metadata and a user-friendly and intuitively designed web service. With our new interface we aim to integrate strong retrieval capabilities into a neat and clearly structured interface, presenting the main features and functionalities to the users at a glance. The search is now organised in different tabs -- documents, authors, journals, classification, software, formulae -- allowing to focus on different types of information. The various search facets are interlinked, and the logic behind the linkages is explained through mouse-over boxes, guiding the users quickly to the requested information. The most recent search facet is the formula search, which is an early prototype of a semantic MathML based encoding of mathematical expressions, developed in collaboration with computer scientists from the Jacobs University in Bremen. Further developments in this direction will certainly follow soon.

The document search is now equipped with a filter which extracts, from the results of a search query, the authors, journals, MSC codes and publication years and orders them by frequency. This new functionality helps to refine the original search but also to answer more complex questions, such as the most prolific authors in certain mathematical fields or journals. Further technical advancements are already underway, the next step being the possibility to define individual preferences such as the display format (e.g. LaTeX, MathML, MathJax, Bibtex or PDF) or the number of presented results.

We hope that you enjoy the new zbMATH website and we welcome any feedback that helps us to improve our services. Our interface will be freely accessible during the last two months of this year, giving all mathematicians and other interested users the chance to use and evaluate our service.

Publications concerning zbMATH

To keep the scientific community informed about our current developments, zbMATH editors also publish short articles in various community journals and magazines, in particular in the quarterly appearing Newsletter of the European Mathematical Society, where zbMATH has its own column. Our recent reports on the new interface appeared in newsletters of various national societies as well as in the June issue of the EMS Newsletter

http://www.ems-ph.org/journals/all_issues.php?issn=1027-488X

In the September issue of the EMS Newsletter we discussed the retrieval of mathematical formulae in the web and introduced our formula search prototype.

Motivated by the 16th General Meeting of the European Women in Mathematics (EWM) in August, two editors at zbMATH initiated a study on the gender distribution among the authors represented in zbMATH records. Since our database comprises the largest digital metadata collection of publications in mathematics, our records certainly provide an extremely solid and highly valuable data basis for such an analysis. The first results were presented at the EWM meeting in Bonn and will appear in the Newsletter of the EWM and in the December issue of the EMS Newsletter.

Reviews and Reviewers

Even though today the access to the full text of an article is easier than it was in former times, the reviews remain an essential service of zbMATH for the mathematical community, especially if they provide additional information, possibly critical, going beyond the abstract of a paper. We are very grateful to our reviewers for their responsible work.

Handling about 120,000 documents annually we are always looking for suggestions for new reviewers. Therefore we would be grateful if you could name us some potential candidates, which might be colleagues, coauthors, postdocs or doctoral candidates of yours. It is sufficient to send to <editor@zentralblatt-math.org> the names and the affiliation of the recommended persons.

Many thanks for helping us maintain a high-quality reviewer pool for zbMATH!