

Congratulations from the Heidelberg Academy of Sciences and Humanities

1931 saw the publication of the first volume of the “Zentralblatt für Mathematik und ihrer Grenzgebiete”, a new mathematical review journal founded by professors Richard Courant and Otto Neugebauer (Göttingen), Harald Bohr (Copenhagen), and the publisher Ferdinand Springer. Their aim was to provide a more up-to-date, comprehensive account of progress in mathematics and related disciplines, and to improve international scientific communication. In its history, Zentralblatt für Mathematik has undergone a remarkable series of transformations.

The first Editorial Office was established on the premises of the Springer publishing house in Berlin. The start under the first Editor-in-Chief of Zentralblatt, Otto Neugebauer, was promising. However, the Nazis’ rise to power in Germany in 1933 and its devastating global consequences also had a major effect on Zentralblatt. Courant fled Germany for the USA in 1933 to escape the Nazi regime. Neugebauer followed in 1939, after a period with Bohr in Copenhagen.

As Zentralblatt came under increasing political pressure and its independence was under threat, the American Mathematical Society founded Mathematical Reviews, instigated by Neugebauer and supported by Courant. Its first volume appeared in 1940. Mathematical Reviews now serves the mathematical community in its electronic version MathSciNet, a database which is in many ways comparable to zbMATH.

In Germany the management of Zentralblatt was taken over in 1939 by the Prussian Academy of Sciences in conjunction with the German Mathematical Society. It was at this stage that Academies started to play an essential role for Zentralblatt.

The Prussian Academy was reopened in 1946 as the German Academy of Sciences. Together with Springer, this academy relaunched Zentralblatt in 1947. What followed was a remarkable German-German collaboration. This was severely affected by the building of the Berlin wall in 1961. The Editorial Office of Zentralblatt and the German Academy of Sciences were located in the Eastern part of Berlin, and thus fell under the rule of the GDR government. An additional Editorial Office was consequently established in West Berlin, again on the premises of Springer, and manuscripts were taken physically from one part of Berlin to another — a trip across the Iron Curtain. It was at this stage that the Heidelberg Academy of Sciences and Humanities took on responsibilities for Zentralblatt. The Heidelberg Academy (based in the West) and the German Academy of Sciences in the German Democratic Republic (in the East) began to edit Zentralblatt jointly, while Springer was responsible for printing and distribution. The GDR government finally ended this cooperation in 1977.

The Heidelberg Academy of Sciences and Humanities was happy to continue its involvement in Zentralblatt after 1977. The increasing role of electronic tools began to fundamentally change the landscape of publishing. This led to the foundation of FIZ Karlsruhe, now operating as “Leibniz Institute for Information Infrastructure”, which became responsible for the Editorial Office of Zentralblatt. In the 1990’s a major effort was undertaken to put Zentralblatt, whose electronic version was renamed zbMATH, on a more European level, with the European Mathematical Society (EMS) as a key player. In particular, the European Mathematical Society and the Heidelberg Academy of Sciences and Humanities share the task of scientifically supervising both the technical processing of the data and the development of the tools for information processing. Thus, starting in 1999, Zentralblatt has had three editorial institutions: the EMS, FIZ Karlsruhe and the Heidelberg Academy of Sciences and Humanities, with Springer responsible for marketing and distribution (until 2020).

The Heidelberg Academy of Sciences and Humanities enthusiastically supported the move to make zbMATH open access. In January 2021, this became reality thanks to a decision by the German Joint Science Conference (Gemeinsame Wissenschaftskonferenz – GWK) based on an evaluation by the Leibniz Association: zbMATH became zbMATH Open. While EMS, FIZ Karlsruhe and the Heidelberg Academy of Sciences and Humanities renewed their editorial contract, the involvement of Springer came to an end. The EMS and the Heidelberg Academy of Sciences and Humanities remain important for quality control and the involvement of the mathematical community.

There are many reasons why the Heidelberg Academy of Sciences and Humanities and zbMATH Open are natural partners. By now this goes far beyond providing highly reliable information on mathematical publications. Many new aspects have arisen, not least the use of mathematical software, now addressed by swMATH, a database which has meanwhile become an integral part of zbMATH Open. Another topic, which concerns the Academy and zbMATH Open alike, is the responsible handling of (open) research data. The Heidelberg Academy of Sciences and Humanities is happy to see that zbMATH Open plays an active role in the NFDI consortium MaRDI (Mathematical Research Data Initiative). Research data and artificial intelligence are intimately linked, and tools such as zbMATH Open will play an essential role in future developments.

zbMATH open has the potential for becoming an essential tool for computer-aided search, supply and use of scientific information in mathematics and its applications. We are proud and happy to be an editorial institution of zbMATH Open.

We congratulate zbMATH Open on its 90th anniversary, and look forward to fruitful cooperation in the years to come.

Bernd Schneidmüller
President of the Heidelberg Academy of Sciences and Humanities