

Greetings from the Head of Mathematics Department on behalf of FIZ Karlsruhe – Institute for Information Infrastructure

FIZ Karlsruhe - Institute for Information Infrastructure is happy to celebrate the 90th anniversary of zbMATH. Since 1979, FIZ Karlsruhe has been developing and maintaining the editorial and technical infrastructure of Zentralblatt MATH. During this time, the service has undergone a substantial development – the latest, and arguably most significant, being the recent transformation to zbMATH Open. Hosting the world’s most comprehensive and longest running abstracting and reviewing service makes us very proud, and the achievement to make it open with the support of German federal and state funds fits perfectly into our mission of providing accessible and sustainable infrastructures for the scientific community.

zbMATH Open has both pursued traditional scientific values and procedures – especially, the editorial process which ensures the quality of the content by its large reviewer network and the editorial staff – and continuously implemented state-of-the-art techniques for information retrieval. Already the first years of Zentralblatt at FIZ Karlsruhe were marked by the establishment of a digital back-end system and the introduction of $\text{T}_{\text{E}}\text{X}$. Since the 1980s, the service has been electronically available, since 1990 as CD-ROM, and since 1996 on the internet. In 2004, the Jahrbuch has been added, and the 2010s saw the introduction of the software layer swMATH and a fine-grained author database connected with a large number of external sources.

Today, propelled by the open interfaces and data which are available through its transformation, zbMATH Open develops into a hub of mathematical knowledge which provides scientists with interlinked information from a large variety of sources. The service is currently extending into various new directions, like the integration of mathematical research data and community platforms, the addition of affiliation information, or semantic entity linking. Many of these developments are possible through national and European projects, like the German National Data Infrastructure and the European Open Science Cloud.

The peculiar connection of modern developments and valuable sustainable scientific information specific for zbMATH Open is perhaps best demonstrated by the recent activities to convert the first volumes into $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$. What was beyond an affordable effort for a long time, appears now feasible by new AI technologies.

FIZ Karlsruhe is happy to provide, with its strong partners, also in the next phase of zbMATH Open’s life services for the mathematical community which take advantage of new technologies while sustaining the traditional quality and reliability.

Olaf Teschke
Head of Mathematics Department, FIZ Karlsruhe