

Preface by the President of the GDM

Ladies and gentlemen, esteemed colleagues, guests from around the world

On behalf of the Gesellschaft für Didaktik der Mathematik, otherwise known as the GDM or the Society of Didactics of Mathematics, it is a great honour and pleasure for me to address you on the occasion of the 13th International Congress on Mathematical Education in Hamburg. We are very proud that the ICME, the most important conference in the field of mathematics education, is taking place in Germany this year and for the second time under the auspices of the GDM. It makes us very happy that we have the confidence to host this important event, which is a real challenge, and we thank the international and local organizers for their hard work in preparing and staging it. Special thanks go to Gabriele Kaiser, ICME 13 convener.

Some of our international readers may ask themselves what 'didactics' means in our society's name. Didactics refers to the German idea of 'didactics' as the science of learning and teaching a specific subject, i.e., didactics of mathematics or didactics of foreign languages. The GDM is a scientific organisation that aims to encourage and promote mathematics education both in research and practice, especially in German-speaking countries. The GDM focuses on the teaching and learning of mathematics in all age groups. Our organisation therefore fosters studies and research in all fields of mathematics education. A particularly important issue for our organisation is cooperation with other societies which support mathematics education as well as research organisations in the international community. The GDM was founded in 1975 and currently has about 1,100 members from Germany, Austria and Switzerland as well as several other European countries.

Two older didactic traditions from German-speaking countries converge in the GDM, namely the college-preparatory mathematical didactics of Felix Klein and what is referred to as *Rechendidaktik*, that is, the didactics of arithmetic, which has existed throughout the history of compulsory schooling in Germany (for example in *Volksschulen*) since Herbart and Diesterweg. Interestingly, the New Math was partially responsible for the convergence of these two traditions, which was a result of the widespread scientification of school mathematics brought on by the New Math in general, a trend which was not limited to college-preparatory education. The previously separate cultures of primary and secondary education thus came to be seen from a more overarching perspective in terms of mathematics education.

Characteristic of the didactics of mathematics in German-speaking countries was first of all a strong content-related and institutional link to mathematics as a scientific discipline. This was expressed in particular in subject-oriented didactical work which dominated scientific discussion in the first two decades of the GDM. At the same time, more and more researchers in didactics of mathematics turned to educational, psychological and sociological research approaches. These initially competed with the subject-oriented approaches, yet with time and in the course of the increasing integration of empirical research work these foci were no longer regarded as opposites but instead coalesced and complemented each other in new fields of research.



The executive board of the GDM: Rudolf vom Hofe (president), Silke Ruwisch (vice president), Andreas Vohns (secretary), Christine Bescherer (financial officer) (from left to right)

This is mirrored in current fields of activity which are reflected in the publications and working groups of the GDM. Also seen here are the influence of and connection with international trends in mathematics didactics and education which developed in the course of growing internationalisation. The working groups are sub-groups of the GDM which each have a thematic focus. Their topics range from specific fields, such as Geometry or Stochastics, to general questions on education, such as Mathematics and General Education or Semiotics in the Didactics of Mathematics, to research methods, such as Interpretative Approaches in Education Research or Empirical Education Research.

An overview of traditional and current foci in European and German-speaking didactics of mathematics will be presented at the ICME 13 in the framework of a Thematic Afternoon. Topics span from specifically German-speaking traditions such as Subject-oriented Didactics (what is known as Stoffdidaktik) to approaches strongly influenced by international discussion, such as the Concept of General Mathematical Education and Relation to Mathematical Literacy, Design Science, Theories in Mathematics Education, Classroom Studies, Educational Research on Learning and Teaching of Mathematics, Large-Scale Studies, and Mathematical Modelling. And naturally there will also be a working group on the topic of the Legacy of Felix Klein.

More detailed information about the GDM and its background can be found in the following article in this brochure. It first examines the background, foundation and development of our society, after which current activities and future perspectives are presented.

On behalf of the GDM, I extend our best wishes for the coming days of the congress. I hope that you will be involved in a lot of interesting discussions and go home with valuable inputs and ideas for improving mathematics teaching.

And on a final note, I hope that – alongside your scientific work – you will also find some time for relaxation and to enjoy Hamburg and Germany during your visit.

Rudolf vom Hofe
(President of the GDM)