GUEST EDITOR'S NOTE

This thematic issue of *Methodological Horizons* is based on contributions presented at the 2nd International Scientific Symposium on Mathematics Teaching Methods – Scientific Research in Mathematics Teaching, held on 14 November 2025 in Pula, organised by the Mathematical Society "Istra". The Symposium was partly funded by the European Union through the NextGenerationEU instrument, within the institutional research project of the Juraj Dobrila University of Pula (No. IIP_UNIPU_010159).

The Symposium brought together researchers and practising teachers with the aim of exchanging scientific findings and experiences oriented towards improving the teaching of mathematics. The presentations included empirical research, a range of methodological approaches, and review papers addressing current issues in the teaching and learning of mathematics.

The six papers included in this issue, following the journal's regular peer-review procedure, reflect some of the key themes of contemporary research in mathematics teaching.

Several contributions address students' misconceptions and conceptual understanding of mathematical content – ranging from integers and trigonometry to the geometric concepts of squares and rectangles. Their findings confirm that students' conceptual difficulties often persist and carry over into more complex content, pointing to the importance of timely diagnosis of these phenomena and the development of targeted didactic interventions aimed at conceptual change.

A particular contribution of this issue is the study on the relationship between students' learning styles and the teaching of the Laplace transform. The results suggest that understanding the structure of students' learning styles can help shape more pedagogically coherent teaching strategies in engineering mathematics, emphasising the importance of conceptual explanation, reflection, and structured application of mathematical ideas.

A significant contribution is also the paper devoted to action research in mathematics teaching. By comparing the technical and practical models of action research, the authors offer a valuable theoretical framework for understanding different approaches to teachers' professional development and the improvement of teaching practice. As research comparing different types of action research remains scarce, this paper represents a valuable contribution to the theoretical discussion and opens space for further systematic research in this area.

The thematic issue is rounded off by a historical-didactic analysis of the representation of the number line in mathematics textbooks from 1961 to 2020. As one of the fundamental representational models in mathematics teaching, the number line plays an important role in the conceptualisation of numbers and arithmetic operations, as well as in the development of mathematical thinking. The analysis of its representation across different periods offers valuable insight into changes in didactic approaches and the ways mathematical concepts are shaped in educational materials.

We believe that this thematic issue contributes to a better understanding of current issues in the methodology of mathematics teaching and confirms the importance of connecting research findings with teaching practice. We are especially grateful to the authors and reviewers for their contribution to the quality of the published papers, to the members of the Scientific and Organising Committees of the 2nd Symposium, and to the Editorial Board of *Methodological Horizons* for their trust and support in preparing this thematic issue.

Branka Antunović
Guest Editor of this Thematic Issue