

## Presentation of the special joint edition

### Special joint edition of XI ERMAC-RS and XXXVI ENMC / XIV ECTM conferences

Welcome to this special edition where we showcase a selection of original works presented at two significant interdisciplinary conferences: the XI Regional Meeting of Applied and Computational Mathematics of Rio Grande do Sul (XI ERMAC-RS) and the XXVI National Meeting of Computational Modeling (XXVI ENMC) / XIV Meeting of Science and Technology of Materials (XIV ECTM).

#### XI REGIONAL MEETING OF APPLIED AND COMPUTATIONAL MATHEMATICS (XI ERMAC-RS)

The XI ERMAC-RS took place in the charming city of Pelotas, Rio Grande do Sul, from June 28 to 30, 2023. Organized by the Brazilian Society of Applied and Computational Mathematics (SBMAC), this event continued a rich tradition of fostering collaboration and knowledge exchange in the field of Applied and Computational Mathematics. Hosted by the Federal University of Pelotas (UFPEL), the conference brought together researchers, professionals, and students from six esteemed teaching and research institutions across the state of Rio Grande do Sul (UFPEL, UFRGS, UFMS, FURG, UNIPAMPA, and IFSul).

#### XXVI NATIONAL MEETING OF COMPUTATIONAL MODELING / XIV MEETING OF SCIENCE AND TECHNOLOGY OF MATERIALS

In a separate but equally impactful event, the XXVI ENMC and XIV ECTM were held from October 25 to 27, 2023, in Nova Friburgo, Rio de Janeiro. These conferences

provided a platform for interdisciplinary collaboration, uniting researchers from related and complementary fields. Hosted at the Polytechnic Institute/State University of Rio de Janeiro (IPRJ/UERJ), the joint ENMC/ECTM event was organized by researchers from various educational institutions across Brazil (including UESC, FURG, UFF, UFU, UFCAT, UFPel, UFT, and INPE).

## **BRIDGING DISCIPLINES FOR SCIENTIFIC ADVANCEMENT**

Both conferences aimed to advance interdisciplinary research in Applied and Computational Mathematics and Computational Modeling. Through seminars, round tables, short courses, oral presentations, and poster sessions (featuring nearly 400 papers), participants engaged in lively discussions and knowledge sharing. The face-to-face format allowed for meaningful interactions among the 500+ attendees.

## **SPECIAL JOINT EDITION**

As a result of these vibrant gatherings, we proudly present this special joint edition. It features a curated selection of works that exemplify the spirit of interdisciplinary exploration and innovation. We extend our heartfelt gratitude to the authors whose contributions elevated the quality of this publication.

We invite you to delve into the pages ahead, explore cutting-edge research, and appreciate the collaborative efforts that drive progress in our field. Happy reading!

Prof. Dra. Daniela Buske  
Special Edition Editor