Preface

Proceedings of the International Conference
on Elliptic and Parabolic Problems,
Gaeta, Italy, 20-24 May 2024

The peer reviewed papers in these Proceedings are written versions of selected lectures delivered by speakers at the "International Conference on Elliptic and Parabolic Problems: Gaeta 2024" held in Gaeta, Italy, from 20 to 24 May 2024.

Continuing the tradition of the previous editions, the aim of this edition of the conference was to bring together confirmed and young researchers in various mathematical fields, such as elliptic and parabolic problems in partial differential equations, fluid and solid mechanics, homogenization, control theory, calculus of variations and functional analysis in general, to share during an intense week their latest research and hopefully foster new collaborations between people and countries.

Without being comprehensive, the contributions collected in this volume reflect the variety and depth of the topics considered during the conference. They discuss topics in partial differential equations and functional analysis, such as homogenization problems, eigenvalue problems, large time behavior of solutions to Burgers equation, Strichartz type inequalities, multi-level structured deformation, and characterization of BV and Sobolev spaces. We would like to express our heartfelt thanks and appreciation to the authors for submitting excellent manuscripts and to the referees for their valuable and timely reviews.

Thanks are also sincerely extended to all participants in the conference for their talks and creating a stimulating and collaborative atmosphere throughout the week, and to the local organizers of the conference for their generous support and hospitality.

Last but not least, the organizers of the conference take pleasure in thanking all the sponsors and associations whose contributions helped make this event possible: Accademia Pontaniana, Università degli Studi di Napoli Federico II, Dipartimento di Matematica e Applicazioni "Renato Caccioppoli", Dipartimento di Scienze e Tecnologie Università degli Studi di Napoli Parthenope, Department of Applied Mathematics of the Hong Kong Polytechnic University, Institut Élie

Cartan de Lorraine, Laboratoire Jacques-Louis Lions, and MNA – Matematici Napoletani in Analisi. Our warmest thanks are also due to the owner and staff of Hotel Serapo for their hospitality and excellent facilities made available for the Conference.

We look forward to continuing this tradition and to welcoming new contributions in the next edition of the conference, to be held in Gaeta, Italy, from 25 to 29 May 2026, whose Proceedings are expected to appear in 2027 in this journal.

On behalf of the organizing committee of the conference,
Renata Bunoiu and Cristinel Mardare
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