M. Morandotti and D. Zucco*

ANALYSIS AND APPLICATIONS
CONTRIBUTIONS FROM YOUNG RESEARCHERS

The next five contributions of the present volume of the *Rendiconti del seminario matematico. Università e Politecnico di Torino* collect some of the results presented at the workshop *Analysis and Applications. Contributions from young researchers*, which took place at Politecnico di Torino on April 8-9, 2019.

The intent of the workshop was to bring together young researchers to discuss frontier topics in mathematical analysis with its applications. The focus was on recent results in the Calculus of Variations, Partial Differential Equations, and Probability, motivated by real-world problems and the theoretical perspectives stemming from them. This is in particular related to some of the sub-sectors of the ERC area PE1, including Analysis, Operator algebras and functional analysis, Theoretical aspects of partial differential equations, Mathematical physics, Probability, Mathematical aspects of computer science, Scientific computing and data processing, Control theory and optimization, Application of mathematics in sciences, Application of mathematics in industry and society life.

The invited speakers of the workshop were:

- Alessandro Audrito (Politecnico di Torino),

- Riccardo Cristoferi (Heriot-Watt University, Edinburgh),

- Sara Daneri (GSSI, L'Aquila),

- Katie Gittins (Université de Neuchâtel),

- Michael Goldman (CNRS and Université Paris 7),

- Flaviana Iurlano (CNRS and Université Paris 6),

- Vladimir Lotoreichik (Czech Academy of Sciences),

- Edoardo Mainini (Università di Genova).

Many students both at the PhD level and at the master level, as well as many early-career researchers participated to the workshop, which had the effect of showing some interesting and fruitful directions of research of contemporary mathematics. This proved to be useful especially for the youngest participants.

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*Dipartimento di Scienze Matematiche "G. L. Lagrange", Politecnico di Torino, Corso Duca degli Abruzzi, 24, 10129, Torino, Italy

Marco MORANDOTTI
Dipartimento di Scienze Matematiche "G. L. Lagrange", Politecnico di Torino
Corso Duca degli Abruzzi, 24, 10129 Torino, ITALY
marco.morandotti@polito.it

Davide ZUCCO
Dipartimento di Matematica "Giuseppe Peano", Università degli Studi di Torino
Via Carlo Alberto 10, 10123, Torino, ITALY
davide.zucco@unito.it