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The *Seminario Matematico* is a society of members of mathematics-related departments of the University and the Politecnico in Turin. Its scope is to promote study and research in all fields of mathematics and its applications, and to contribute to the diffusion of mathematical culture.

The *Rendiconti* is the official journal of the Seminario Matematico. It publishes papers and invited lectures. Papers should provide original contributions to research, while invited lectures will have a tutorial or overview character. Other information and the contents of recent issues are available at <http://seminariomatematico.dm.unito.it/rendiconti/>

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# RENDICONTI DEL SEMINARIO MATEMATICO-UNIVERSITÀ E POLITECNICO DI TORINO

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*Università e Politecnico di Torino*

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RENDICONTI DEL SEMINARIO MATEMATICO-UNIVERSITÀ  
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## PREFACE

This issue of *Rendiconti del Seminario Matematico dell'Università e Politecnico di Torino* collects some contributions by invited speakers of two events organized in 2019 by the group of Nonlinear Analysis of the Department of Mathematics G.Peano of the University of Torino.

The first of these events was the *Nonlinear Meeting in Turin 2019*, a two-day workshop in Nonlinear Analysis held in Torino on January 31 and February 1, 2019 (<https://sites.google.com/view/nlmt2019>). This workshop was the fourth edition of the *Nonlinear Meetings*, whose past editions have been held in Turin, Milan, and Udine. It was addressed to people interested in Nonlinear Analysis and Differential Equations, with the aim to offer a chance of presenting some recent results and exploring future perspectives in these fields, through the contribution of both recognized experts and young researchers. The workshop saw also the participation of several PhD students and young researchers from all over Italy, and was supported by Dipartimento di Matematica Giuseppe Peano - Università degli Studi di Torino, INdAM - GNAMPA, and ERC Advanced Grant 2013 - COMPAT (P.I. Susanna Terracini).

The second event was the conference *New Trends in Celestial Mechanics 2019*, an international congress on Celestial Mechanics held in Cogne on June 24-28, 2019 (<https://sites.google.com/view/ntcm2019>). The scientific committee of this conference was composed of Vivina Barutello, Alberto Boscaggin, Alessandra Celletti, Walter Dambrosio, and Susanna Terracini. Its aim was to present recent research results in the field of Celestial Mechanics, through the contribution of recognized experts, with particular emphasis on the theoretical aspects of the topic (e.g., dynamical systems, perturbation theory, variational methods, symplectic techniques) and a special session on applied problems. The conference was sponsored by Dipartimento di Matematica Giuseppe Peano - Università degli Studi di Torino, ERC Advanced Grant 2013 - COMPAT project (P.I. Susanna Terracini), and Università degli Studi di Roma Tor Vergata.

We thank all the speakers of both the events, in particular those who accepted our invitation to contribute to this special issue for their interesting contributions, and all the referees for their accurate job. We wish to thank also Professor Marino Badiale for suggesting the possibility to edit this volume and Professor Emilio Musso, the Executive Editor of the *Rendiconti del Seminario Matematico dell'Università e Politecnico di Torino*, for helping us to realize it.

A. Boscaggin, F. Colasuonno and G. Feltrin (organizers of *Nonlinear Meeting in Turin 2019*); V. Barutello, A. Boscaggin, G. Canneori and W. Dambrosio (organizers of *New Trends in Celestial Mechanics 2019*)

