

## PREFACE

This issue of *Rendiconti del Seminario Matematico dell'Università e Politecnico di Torino* is meant as a tribute to the career of Fabio Zanolin (now emeritus professor at the University of Udine) on the occasion of his 70th birthday and retirement, to be celebrated in the forthcoming international conference “*Differential Equations and Dynamics in Alba*” (September 11–13, 2023, [deg1.uniud.it/deda2023](http://deg1.uniud.it/deda2023)).

The issue contains a foreword by Anna Capietto (first PhD student of Fabio Zanolin and member of the scientific committee of the above mentioned conference), followed by seven survey papers, written by ten of the most assiduous collaborators of Zanolin (including five of his former PhD students) with the aim of illustrating, from a personal perspective, some of the manifold achievements of his brilliant career. These articles are collected according to the chronological order of the contributions surveyed. Precisely, the issue contains the following contributions:

- a paper by Pierpaolo Omari (Trieste) dealing with the periodic boundary value problems for ordinary differential equations at resonance,
- a paper by Gabriele Villari (Florence) dealing with periodic solutions and limit cycles of the Liénard equation,
- a paper by Jean Mawhin (Louvain la Neuve) dealing with continuation theorems for nonlinear differential problems,
- a paper by Alessandro Margheri and Carlota Rebelo (Lisbon) dealing with the Poincaré–Birkhoff fixed point theorem and its applications to periodic solutions of ordinary differential equations,
- a paper by Duccio Papini (Udine) dealing with the stretching along the paths, a topological technique, developed by Fabio Zanolin and his collaborators, to find complex dynamics in dynamical systems,
- a paper by Alberto Boscaggin (Turin) and Guglielmo Feltrin (Udine) dealing with multiplicity of positive solutions for problems with indefinite weight,
- a paper by Julián López-Gómez and Eduardo Muñoz-Hernández (Madrid) dealing with subharmonic solutions and chaos for periodic predator-prey models.

We warmly thank all the authors who accepted with great enthusiasm and generosity to contribute to this special issue, as well as the referees for their precious work. Moreover, our acknowledgment goes to Emilio Musso, Executive Editor of *Rendiconti del Seminario Matematico dell'Università e Politecnico di Torino*, for his help in the realization of the issue.

Alberto Boscaggin, Walter Dambrosio, Guglielmo Feltrin, Duccio Papini (organizers of the conference “*Differential Equations and Dynamics in Alba*”).