

## PREFACE



In 2018, as Prof. Slobodan K. Simić's former Ph.D. students, we made an agreement with the Editor-in-Chief of *Discussiones Mathematicae Graph Theory* (DMGT), Prof. Mieczysław Borowiecki, to organize a special issue to be dedicated to Slobodan's 70th birthday, and to his remarkable scientific career consisting of 3 research monographs, more than 30 textbooks (including the reprinted editions), several edited books and more than 160 scientific papers. Among others, Slobodan was a long-time Editorial Board member of DMGT.

Slobodan was a prominent researcher in the area of Spectral Graph Theory, who made significant contributions to this subject with many novel, seminal and elegant results ranging from research topics concerning integral graphs, largest eigenvalue, second largest eigenvalue, graphs with least eigenvalue equal to  $-2$ , eigenspaces of graphs, star complements, Laplacian eigenvalues, signless Laplacian eigenvalues or signed graphs. His contribution has also been recognized in the framework of applications of Spectral Graph Theory in computer science, computer aided research, computer implementations and some related areas. More than 2000 citations are the evidence of the impact his work had among mathematicians across the world.

However, the unfortunate and premature Slobodan's death in May 2019 lead us to change the scope of this issue to the career and memory of Slobodan. This special issue of DMGT contains 20 contributed invited articles, which were refereed according to the standards of DMGT. Among the received articles, one is a biographical note co-authored by Slobodan's mentor Prof. Dragoš Cvetković and Prof. Peter Rowlinson. The others are written by more than 40 well-known mathematicians working in Spectral Graph Theory. Most of the invited authors are Slobodan's former co-authors, collaborators and close friends.

We are indebted to the Editorial Board of DMGT, and in particular to Prof. Mieczysław Borowiecki, for allowing us to organize this issue devoted to Slobodan. We are very grateful to all invited authors, who immediately accepted our call and submitted their high-quality manuscripts concerning contemporary topics in (spectral) graph theory. Finally, our special thanks go to all the referees who have diligently carried the review process, to Prof. Ewa Drgas-Burchardt, who has communicated with us in order to organize the issue, and to Prof. Danuta Michalak for handling the editorial procedure.

In the meantime, Slobodan's close colleagues and long-time collaborators have prepared a book about his mathematical achievements, which was printed in November 2019 by Serbian scientific publishing house called Akademska misao (Academic Mind). One of the chapters of the book mentions this special issue.

We hope that this special issue will leave a significant trace in mathematical community and will keep alive the memory of our honorable mentor, colleague and friend Slobodan.

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