This special issue is dedicated to Dragoš Cvetković on the occasion of his 70th birthday. He has many important contributions in graph theory, combinatorics, combinatorial optimization, linear algebra and artificial intelligence, but he is certainly best known for his pioneering work in spectral graph theory, and the now classic monograph *Spectra of Graphs—Theory and Application*, written jointly with Michael Doob and Horst Sachs.

Dragoš Cvetković was born in Sremska Mitrovica, Serbia in 1941. He received his B.Sc. in electrical engineering from the University of Belgrade in 1964 and his Ph.D. in mathematics in 1971. His Ph.D. thesis *Graphs and their...*
spectra [15], published in English in condensed form, attracted much attention, prompting Horst Sachs and Richard Bellman to suggest a monograph. This eventually resulted in the publication of the aforementioned Spectra of Graphs [M1]. This book, along with its extended edition, is even nowadays a basic source of information for researchers in a variety of fields. His later monograph Eigenspaces of Graphs [M3], written together with Peter Rowlinson and Slobodan Simić, summarized efforts in extending eigenvalue techniques by placing the emphasis on eigenvectors and eigenspaces, and invariants derived from them.

Dragoš tied his professional career to two institutions: the Faculty of Electrical Engineering of the University of Belgrade and the Mathematical Institute of the Serbian Academy of Sciences and Arts. He taught at the Faculty of Electrical Engineering from 1964 until he retired there in 2006, and then took up a position at the Mathematical Institute. He was elected to membership of the Serbian Academy of Sciences and Arts, first as a corresponding member in 1985, and then as a regular member in 1994.

Dragoš Cvetković is author (or co-author) of 210 papers, 8 monographs, 11 textbooks, 6 popular books, and editor of 5 proceedings. He spent the academic year 1975/1976 at the Technological University, Eindhoven (The Netherlands) as a Research Fellow. His work with Bussemaker and Seidel in Eindhoven shaped much of his future research, as there he started to study graphs with least eigenvalue $-2$ (and also integral graphs). Identifying the graphs with least eigenvalue $-2$ meant developing the theory of star complements and the final solution to this problem was published as a research monograph [M4] in 2004. From 1980 to 1984 he led the development of the interactive programming system GRAPH, the first ever software to help researchers pose, test and verify conjectures in graph theory. Its modern-day successor is newGRAPH [189].

Dragoš spent the academic year 1985/86 at the University of Stirling, Scotland as a Carnegie Research Fellow, and was later appointed as an Honorary Professor there. For shorter periods of time he was also a guest of the University of Manitoba, Canada in 1978, and a visiting professor at the Technische Hochschule Ilmenau, Germany in 1983.

Dragoš has had seven Ph.D. students (Slobodan Simić, Ivan Gutman, Zoran Radosavljević, Irena Pevac, Milenko Petrić, Vladimir Dimitrijević and Dragan Stevanović). He has served as an associate editor of Linear and Multilinear Algebra, and a member of the editorial board of the Journal of Graph Theory and four Serbian mathematical journals. In the period 1990–2000 he was Editor–in–Chief of the mathematical journal of the Faculty of Electrical Engineering, Univ. Beograd, Publ. Elektrotehn. Fak., Ser. Mat.

Another field in which Dragoš has made significant contributions is chemistry, or more precisely, chemical graph theory. One of the editors of this issue met Dragoš in 1971 and learned from him about graphs and their spectra. This led to the application of spectral graph theory in chemistry, eventually resulting in thousands of published papers. Thus it is no surprise that Dragoš has been a member of the International Academy of Mathematical Chemistry since 2005.

It must not pass without mention that Dragoš had, and has, interests and activities different from mathematics. His book on preference (a card game
popular in Serbia) has had four editions (so far), and it certainly reflects the author's great expertise and authority in this area. Dragoš wrote also on chess.

We are honored to have edited this volume dedicated to him, and we thank all the authors and referees for their contributions.

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Edited Works


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