Preface: In Memory of A.V. Balakrishnan

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A. V. Balakrishnan, a co-founder and first, long-time Editor-in-Chief of Applied Mathematics and Optimization, passed away in Los Angeles on March 17, 2015.

The scientific community, and in particular our journal's community, is deeply saddened and mourns his departure.

The present special issue of AMO intends to commemorate and cherish his memory while paying tribute to his lasting role and influence, by offering a selection of contributions of long-time friends, former advisees, collaborators and associates.

He was a Distinguished Professor Emeritus and Research Professor in the Department of Electrical Engineering, University of California, Los Angeles (UCLA), while holding also for many years an appointment in the Department of Mathematics. He served in the faculty of UCLA for more than 50 years, during which he also chaired the Department of System Sciences for two terms.

Throughout his distinguished academic career, he contributed mightily to the areas of fractional powers of operators and operator semigroups, communication theory, deterministic and stochastic control theory, all the way to the most recent phase of his research activities in the theory of continuum aero-elasticity.

During the Cold War, he also served for many years as a diplomatic bridge between the scientific communities in the West and in the former Soviet Union. In particular, two

lasting achievements in this area, whose benefits still positively impact the scientific community, are noticeable. With J. L. Lions, S. Marchuk, and L. Pontryagin, he co-founded Applied Mathematics and Optimization and also gave birth to the International Federation of Information Processes's TC7 Committee on Modeling and Optimization, whose activities were spearheaded simultaneously in Rome (A. V. Balakrishnan and J. L. Lions) and in Moscow (S. Marchuk and L. Pontryagin).

Bal, as he was known to everyone, was the recipient of many outstanding awards: Life Fellow of IEEE in 1996; the NASA Public Service Medal in 1996 for his "exceptional continuous theoretical and administrative contributions in establishing the UCLA-NASA Flight Systems Research Center"; the Richard Bellman Control Heritage in 2001—the highest professional achievement award given to control systems engineers and scientists—for his contributions to the theory and application of automatic control from the American Automatic Control Council (AACC); the Distinguished Alumni Award in Academia from the University of Southern California (USC) Viterbi's School in 2004. He also received honors and awards from IFIP (1977) and NASA (1978, 1992, 1995, and 1996). Moreover, in 1980, he was the recipient of the Guillemin Prize in recognition of the major impact that his original contributions have had in setting the research direction of communications and control. He also holds patents on the "modes of interconnected lattice trusses using continuum models", and "laser beam log amplitude temporal scintillation spectrum due to crosswind".

An Endowed Chair Professorship in his name has been recently established at the Viterbi School of Engineering, University of Southern California, Los Angeles.

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