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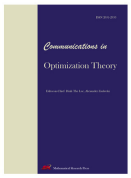

PREFACE
A SPECIAL ISSUE ON NUMERICAL ANALYSIS AND CONTROL DEDICATED TO THE MEMORY OF PROFESSOR ROLAND GLOWINSKI

Roland Glowinski was an outstanding French-American mathematician who worked in applied mathematics. His work focused on the numerical solution and simulation of phenomena modelled by partial differential equations from mechanics, physics and engineering sciences, as well as the optimal design and control of systems governed by systems of partial differential equations and/or ordinary differential equations. He was one of the first to apply the conjugate gradient method to PDEs and to use Lagrange multipliers numerically for saddle point problems. He was a pioneer in many fields, including parallel computing.

Roland Glowinski obtained his PhD in 1970 from Jacques-Louis Lions, was a member of the French Academy of Sciences and held an endowed chair at the University of Houston from 1985. During his career, he has written or co-authored nearly four hundred scientific papers, ten books, and has been editor-in-chief of more than twenty scientific journals and anthologies. He was invited to lecture at universities and scientific institutions around the world and was the keynote speaker at many scientific conferences. He was the advisor of 28 PhD students.

This special issue contains a number of original papers in areas in which the work of Roland had a breaking through impact. Roland's work and his generous and inspiring personality has influenced a huge community all around the world during several generations. The list of authors and articles gathered in this volume is just a small proof of his unforgettable scientific and human legacy. Most of the papers collected here have been contributed by former students, collaborators, friends and colleagues of Roland Glowinski, who were influenced by his scientific work. The special issue contains seventeen papers contributed by researchers in Numerical Analysis and Control from Brazil, China, France, Germany, Hong Kong, Italy, Qatar, Spain, Sweden, Switzerland, and USA. These papers cover a wide spectrum of important problems and topics of current research interest.

Therefore we feel that this special issue will be highly important for many mathematicians, who are interested in recent developments in Numerical Analysis and Control, as well as in their numerous applications.

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