Boundary Value Problems
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Preface

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Preface

Professor Jean Mawhin is recognized worldwide as one of the pioneers in the development of topological tools for analyzing the existence and multiplicity of periodic solutions in very general classes of nonlinear differential equations and systems.

The research he has developed, from his first publication in 1964, has been enormous, with 15 doctoral theses supervised and more than 350 research articles and contributions to conference proceedings published. His participations in scientific conferences and seminars are countless and his involvement in mathematical activity maintains a high level. At present he is the editor of several prestigious scientific journals.

In addition he is the author of chapters in eleven books of the prestigious series *Lecture Notes in Mathematics*. He has written ten books on various educational and mathematical research topics including analysis, differential equations, nonlinear functional analysis and variational methods.

He was a vice-president of the Société Scientifique de Bruxelles in 2001-2002, becoming the president in 2002-2003. Moreover, he was the president of the Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique in 2002.

Jean Mawhin won the Alexander von Humboltd Award (created to emphasize the scientific cooperation between Belgium and Germany), he was attributed the mathematical medal of the Union of Czech Mathematicians and Physicists and the prestigious Bernard Bolzano Honorary Medal of the Academy of Sciences of the Czech Republic. Also, he was distinguished with the Honorary Badge for Merit in Development and Economics granted by the Russian Academy of Natural Sciences. Recently he received the first Julius Schauder Medal of the Nicolaus Copernicus University in Poland.

He is Doctor Honoris Causa of the University of Bucharest and the Polytechnical University of Bucharest in Romania and of the University of Granada in Spain.

A synthetic appreciation of Jean Mawhin's contributions to nonlinear analysis and differential equations could be given by saying that he has tackled many significant problems in such a way that depth is softened with a touch of elegance and simplicity.

The present Special Issue devoted to the development of topological methods in nonlinear analysis is published in the honor of his 70th birthday. This collection consists on forty-three articles in which some of the developed techniques by Jean Mawhin along these fifty years are used. The main topics are related to

- Ordinary and partial differential equations
- Operator theory
- Variational methods

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- Difference equations
- Functional analysis
- Fractional equations
- Critical point theory

Professor Jean Mawhin is not only a reference in the field of Mathematics, he is an endearing and kind person whose example is a model for all who have had the pleasure of meeting him.

With this Special Issue we intend to interpret the nonlinear analysts' acknowledgement of the impressive and inspirational work of Professor Jean Mawhin. We wish his mathematical creativity will continue for many years to come.

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