

Preface

This part of Volume 52 of RIMUT is dedicated to Professor Julián López-Gómez on the occasion of his sixtieth birthday: it contains fifteen invited papers in the field of Nonlinear Differential Equations, authored by some distinguished mathematicians who have collaborated with him in various ways during the last three decades.

The Editor of RIMUT who has taken care of this issue, Pierpaolo Omari, wishes to thank all Authors for their valuable contributions, as well as all Experts who collaborated in the reviewing process of the papers published herein for their highly professional work. Last, but not least, a warm thank is due as well to prof. Marcela Molina-Meyer, the wife of Julián, who kindly provided a lot of information about his biography.

Julián López-Gómez was born in Sacedón, Guadalajara province, on September 11th, 1959, in “La Alcarria”, where, as Julián likes to point out, the bees produce the best honey of Spain! With wonderful landscapes and cliffs over the Tagus river, that ends in Lisbon, Sacedón had 1890 inhabitants when he was born. But Sacedón did not have any High School to complete Secondary Studies in 1969. Thus, since the salary of his father could not cover the fees of the High School internship in Guadalajara, Julián began his Secondary Studies on an independent basis at the age of 10 supervised by Don Timoteo, a senior professor with almost no knowledge of “Modern Mathematics”, who nevertheless really loved Mathematics and trained him to calculate very fluidly in any basis. By his lack of knowledge of “Modern Mathematics”, the marks of Julián during the annual exams in the public High School of Guadalajara were extremely poor the first three years: Julián could not understand neither the usual abstract symbols to design operations in algebraic structures, nor the standard set operations, nor what a Venn diagram was. As Julián says: “Bourbakist mathematics had not been designed for Don Timoteo and myself!”

When Julián reached 12 years, the salary of his father was almost doubled and he could finally enter at the age of 13 the internship of the Diocesan College at Guadalajara, the unique one existing there, to complete his Secondary Studies. Although he needed some complementary lectures of Latin and Mathematics at the beginning, he finished his studies very brilliantly getting the best marks of the Diocesan College since its foundation. At the Secondary School, he also enjoyed a top-level mathematical educator, Doña Concha, a young mathematician, who seemed to have a secret pact with the real numbers

and the sequences of rational numbers. Her construction fascinated so much Julián that he began to spend most of his time solving all the exercises proposed by her. Nonetheless, very fortunately for him, at the High School Julián also got a complete humanistic formation in Art, History, as well as in Spanish, French and Classical Literature: disciplines that he has constantly loved and cultivated, besides Mathematics, of course.

During 1975-76, Julián completed his University Orientation Course in Santa Ana School, where he was so lucky as to enjoy another excellent educator in Mathematics, Doña Teresa. As a consequence, he got the highest marks of his province in his Entrance Exam to Complutense University of Madrid, where he completed his Degree on Pure Mathematics in the period 1976-1981. His most influential Professors during his graduation were M. de Guzmán, C. Fernández-Pérez and A. Somolinos. Professor Fernández-Pérez was the advisor of Julián in the elaboration of his Degree Thesis, defended in November 1981. Simultaneously, Julián attended the inspiring “Seminar of Mathematical Biology” organized by A. Somolinos and F. Montero, where he got fascinated by the power of Nonlinear Differential Equations in modeling many important biological phenomena. This definitively pushed him to specialize in Nonlinear Analysis and Partial Differential Equations. In June 1984, Julián defended his PhD Thesis, titled “Critical cases of Hopf bifurcation at multiples eigenvalues”, under the supervision of A. Casal, although at that time Julián worked on a rather independent basis as his mathematical background was already excellent for his age. Julián feels extremely fortunate of having had some of the best possible mathematical educators in the Spanish Transition. Two years later, he got a permanent Lectureship at the Polytechnic University of Madrid and, after six months, in November 1986, he moved to another Lectureship at the Complutense University, where he later got his present position of Full Professor, after winning a National Habilitation Competition against 58 competitors. Julián was the first habilitated mathematician in Applied Mathematics of Spain!

In his brilliant career Julián has advised 14 Doctoral Thesis and has played an important role in the elaboration of the Doctoral Thesis of some other students. He delivered an impressive number of advanced courses or seminars all over the world: Europe, North and South America, Asia, Australia, and North Africa. Till now he has authored about 200 papers and 13 books. He also serves, or has served, as Editor of several international mathematical journals, in particular of our one since 2014.

All this confirms that Professor Julián López-Gómez is a leading expert in the field of Nonlinear Analysis, Bifurcation Theory, and Partial Differential Equations.

Congratulations and best wishes, Julián!