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Advances in Mathematical and Statistical Modeling

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This book is prepared as a tribute to Professor Enrique Castillo, who has contributed significantly to the fields of mathematics and engineering, and has nurtured numerous engineers and mathematicians.



ENRIQUE CASTILLO

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Preface

Professor Enrique Castillo was born on October 17, 1946, in Santiago de Compostela, Spain. His parents, Mr. Enrique Castillo Latorre, an industrial engineer, and Mrs. Pastora Ron Noya, a school teacher, have four sons: María del Carmen, Enrique, María José, and Francisco.

This biographical summary includes Professor Castillo's family, education, and professional career and accomplishments, as well as the human side of Professor Castillo and his wife María del Carmen.

Family: Professor Castillo's own family started on July 17, 1970, when he got married to María del Carmen Sánchez Hidalgo. They now have five children: (1) María del Carmen, who was born in 1972 and now holds a Ph.D. Degree in Civil Engineering; (2) Enrique, who was born in 1973 and is now a civil engineer; (3) Eva, who was born in 1974 and is currently a school teacher specializing in English and special education; (4) Puri, who was adopted in 1978 and is now a hairdresser; and (5) Sergio, a child with a physical disability who was adopted in 1982.

Professor Castillo's family increased even further when his daughter Puri got married to José, his daughter Eva got married to Pepe, and his son Enrique got married to Gloria. Professor Castillo and his wife now have two granddaughters: Andrea and Irene.

Education: Initially Professor Castillo lived in Madrid and studied at the HH. Maristas School. He then attended the Polytechnical University of Madrid to study Civil Engineering. The third year he started working at a consulting engineering firm under the direction of Prof. Florencio del Pozo and was devoted to bridge design. Two years later he moved to another important consulting firm called Intecsa.

After getting his Bachelor of Science degree in Civil Engineering in 1969, he started his Ph.D. program of study with Professor Jiménez Salas, a member of the Spanish Academy of Sciences, in Geotechnics. Professor Salas then facilitated Professor Castillo's joining the Northwestern University's Geotechnical Program, with Professor Raymond Krizek, a member of the National Academy of Engineering in the United States of America.

In July 1970, Professor Castillo and María del Carmen travelled together to Chicago, where Professor Castillo started his Ph.D. Program at Northwestern University. Professor Castillo was the first person to go directly to the Ph.D. Program without going

through a Master's program in Geotechnics. He obtained the maximum grades and finished his Ph.D. degree in 1972 in record time (15 and one half months) at Northwestern University. He then returned to Spain in December 1972.

In 1973 he obtained a second Ph.D. degree in Geotechnics from the Polytechnical University of Madrid.

In 1974 he finished his Bachelor's of Science degree in Mathematics (in only one year he finished all the courses after some transfer of credits due to his degree in engineering).

Professional Career: In September 1973, he moved to Santander, Spain, and started teaching at the University of Santander (now University of Cantabria), changing from the Geotechnical field to the field of mathematics. In 1976 he became a Full University Professor in Algebra and Statistics. He has also served as the Head of the Department of Applied Mathematics (1975-1984), Vice Dean of the School of Civil Engineering (1975-1982), and Vice Rector of the University of Cantabria (1977-1978).

During the 1985-1986 academic year, Professor Castillo was invited by Professor Janos Galambos to spend a sabbatical year at Temple University with all his family. During this year, Professor Castillo wrote his first book on Extremes as well as some papers. In 2000-2001, he spent a year at the University of Castilla La Mancha in Ciudad Real, Spain, where he helped in the creation of the new School of Civil Engineers.

In 2006-2007 he spent another sabbatical year alternating between Santander and Ciudad Real to continue his collaboration. This time his job was more focused on research duties and on starting new research groups in several areas.

Professor Castillo has also visited several universities in Europe (e.g., ETH Zürich, Manchester University in the United Kingdom and Lorand Eotvos University in Budapest), USA (e.g., Northwestern, Temple and Cornell Universities), Argentina (e.g., San Juan University, the National University of Nordeste in Corrientes, the National University of Technology in Resistencia, and the National University of Misiones in Posadas), and the Catholic University of Valparaiso in Chile. He was also invited as a Distinguished Visiting Professor at the American University in Cairo, Egypt.

Professor Castillo has also been a member of several professional and honorary societies including the Spanish Academy of Engineering, the American Statistical Association, the International Statistical Institute, the American Mathematical Society, the Spanish Society of Civil Engineering, the Spanish Society of Numerical Methods for Engineering, and the Spanish Society of Operations Research, Statistics, and Informatics.

Teaching and Mentoring: Professor Castillo is an excellent teacher and an exemplary mentor who is genuinely interested in his students. His door is always open to his students. So far he has supervised 29 Ph.D. theses in Engineering, Mathematics, Statistics, Medicine and Economics. He has taught many courses in various fields such as Mathematics (e.g., Numerical and Symbolic Calculus, Functional Analysis, Functional Equations, and Optimization), Probability and Statistics (e.g., Statistical Inference, Time Series Analysis, Analysis of Variance and Experimental Design, Regression Analysis, Extreme Value Theory, Biostatistics, and Simulation), Computer Science (Data Bases, Multimedia and Authoring Languages, Expert Systems and Artificial Intelligence).

Research and Scholarly Activities: Professor Castillo is an extraordinary researcher and a prolific writer. One most amazing aspect is that Professor Castillo is an expert in so many different areas of science—from engineering to mathematics. He has published more than 165 papers in 95 different scientific journals, 137 papers in conference proceedings. He is also the author and co-author of 13 books in English (John Wiley & Sons (3), Springer-Verlag (5), Academic Press (1), Kluwer (1), Elsevier (2), and Marcel Dekker(1)) and 15 books in Spanish. Obviously, Professor Castillo's research record is outstanding and impressive. In recognition of his achievements, for example, he has been inducted to the Spanish Academy of Engineers and has been awarded the Doctor Honoris Causa by the University of Oviedo. His curriculum vitae does not actually reflect the scope, depth, and impact of his research and scholarly activities, but some details can be seen in his web site at <http://personales.unican.es/castie/>.

Scholarly Awards: Professor Castillo has received several awards in recognition of his extraordinary work. These include:

- Extraordinary Ph. D. Prize, Polytechnical University of Madrid (1973)
- Entrecanales Prize for the best Ph.D. Thesis in Geotechnics, Polytechnical University of Madrid (1974).
- Founding Member of the Spanish Royal Academy of Engineering (1994).
- Doctor Honoris Causa by the University of Oviedo, Spain (1999).
- Gold Medal of the University of Castilla La Mancha (2001)
- Silver Medal of Cantabria University (2005).

The Human Side: Last, but perhaps most important, is the human side of Professor Castillo and his wife, María del Carmen. For obvious reasons, this side cannot be seen in his professional resume. While engaging in all of his professional activities, Professor Castillo and his wife can find the time, resources, and kind hearts to help the poor and the needy out of the goodness of their hearts. For example, they have taken care of two homeless people, initiating the Informatics Chair in Dueso Penance Center, to help inmates in Spanish prisons, and, perhaps most important of all, adopting two disabled children: Puri, a three year-old, mixed-race girl in 1982, and Sergio, a four year-old with a mental disability as a result of maltreatment in 1986.

Professor Castillo also has a genuine interest in international collaboration and cooperation and in helping students, researchers, and scholars from various countries in the world. He is especially interested in helping people from underdeveloped countries (e.g., countries in Latin America and Africa).

Together with Melecio Agúndez and Jesús Flórez, he created the Theology Chair at the University of Cantabria. He also collaborated in a Master's Program at the University of Cantabria for South American students, but because some of them stay in Spain after finishing, he has been offering the courses in South America. Thus, he founded in collaboration with other professors from the University of Cantabria and the collaboration of the Castilla-La Mancha University, the Itinerant Master's Program in Informatics, to help universities without enough means to have this program.

This includes Northeast National University (Corrientes) and the Misiones National University (Posadas) in Argentina, and National University of Pilar (Pilar) and East National University (Ciudad del Este) in Paraguay, where he received the Pin of the University.

Ciudad Real
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