IEEE RTSI 2018 – Track 2 – 2.9

ADVANCED NUMERICAL MODELLING

The aim of this technical session is to bring together researchers with different background and interests in all aspects of numerical modelling and computational data analysis. The session is devoted to provide an adequate space to share experiences, join scientists and students interested in discussing on the computational challenges facing novel developments and to highlight recent advances on modelling. Applied and theoretical results are both appreciated covering a broad diversity of topics. Multivariate approximation, soft computing and artificial intelligence based on modelling of complex phenomena, inverse problems solution and optimization techniques applied to resolve issues of strategic interest for the industry are welcomed. All researchers interested in these knowledge areas are invited to submit original unpublished results to the peer review for presentation and publication.

Elisa Francomano

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Short Curriculum Vitae

Elisa Francomano is Associate Professor of Numerical Analysis at the University of Palermo. At the moment she has joined the department of the Industrial and Digital Innovation (DIID). She received a master degree in Mathematics (cum laude) from the University of Palermo in 1988. In 1989, she joined the Istituto di Calcolo e Reti ad Alte Prestazioni (ICAR-National Research Council) on a fellowship, working on numerical methods and parallel computing. From 1992 to 2002, she was Senior University Researcher. Since 1989, she has been participating in the activities of the Numerical Analysis Group of the University of Palermo, and she has given lectures in many courses for students on engineering, chemistry, mathematics, and statistics. She taught numerical analysis, fundamentals of computer science and parallel algorithms for PhD students, too. She is a tutor to students working with MIUR and National Research Council projects fellowships and is in charge of national and international scientific projects. Her main research interests, conducted in collaboration with italian and foreigners researcher groups, are on the fields of computational science, with major applications in electromagnetic transient analysis and in computer vision dealing with numerical linear algebra, partial differential equations, approximation theory, and high-performance scientific computing. She is member of the National Group of Scientific Computing (GNCS-INDAM), Italian Society of Applied and Industrial Mathematics (SIMAI) , Italian Network on Approximation Therory (RITA).

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Short Curriculum Vitae

Antonino Laudani was born in Catania, Italy, in 1973. He received the Laurea degree (cum laude) from the University of Catania, Catania, Italy, in 1999, and the Ph.D. degree from the University of Reggio Calabria, Reggio Calabria, Italy, in 2003, both in electronic engineering. Currently, he is Assistant Professor of Electrical Engineering with the Department of Engineering, Roma Tre University, Rome, Italy. He is the author of more than 100 international publications and member of important international societies (IEEE, AAAS, ISES, etc). His research interests include photovoltaic system modeling, computational electromagnetism, innovative techniques for numerical solutions of electrical and electromagnetic problems, soft computing technique, Artificial Intelligence and neural networks, optimization and inverse problem solutions, and design of embedded system application. Most of the its research activities have been conducted in collaboration with researcher groups from Italian University or Research Institute (ENEA, INGV, CNR) or from International Institute such as ESA (Netherlands), NPL (UK), University of Colorado (USA),VIT (india) or under agreements with the research group from manufacture companies (STMicroelectronics, Galileo Avionica, Selex Communications, etc..) to resolve issues of strategic interest for the industry.