# NEWSLETTER of the European Mathematical Society



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#### **Features**

Knotted Vortex Lines and Vortex Tubes in Stationary Fluid Flows

On Delusive Nodal Sets of Free Oscillations

Gösta Mittag-Leffler

Anniversary The First Years of the EMS

Interview Jacob Murre – Remembering Grothendieck

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## European Mathematical Society

#### Newsletter No. 96, June 2015

Editorial: 7ECM – <i>V. Mehrmann &amp; E. Grubits</i> New Members of the Editorial Board New EMS Publicity Officer EMS Executive Committee Meeting in Prague – <i>R. Elwes</i> Meeting of Presidents of Mathematical Societies in Innsbruck – <i>B. Elwes</i> .	3 5 6 6 8
Joint Anniversary Weekend FMS-I MS – <i>C. Parker</i>	9
José Mariano Gago (16 May 1948–17 April 2015) – <i>P. Freitas</i>	10
European Girls' Mathematical Olympiad- B. van Dalen	10
The First Years of the EMS – A. Lahtinen	12
Recollection of a Very Exciting Time – JP. Bourguignon	15
Cameras Among Mathematicians! – F. Tisseyre	17
Institut Mittag-Leffler – A. Laptev	20
Gösta Mittag-Leffler (1846–1927) – A. Stubhaug	22
Knotted Vortex Lines and Vortex Tubes in Stationary Fluid Flows <i>A. Enciso &amp; D. Peralta-Salas</i>	26
On Delusive Nodal Sets of Free Oscillations – <i>N. Kuznetsov</i>	34
Interview with Prof. Dr. Günter Pickert – A. Beutelspacher &	
G. Törner	41
Interview with Jacob Murre – <i>U. Persson</i>	49
Pursuing a Mathematical Career – <i>Y. Nakatsukasa</i> A Presentation of the Italian Association of Mathematics	54
Applied to Economic and Social Sciences – <i>M. LiCalzi</i>	55
ICMI Column – JL. Dorier	57
CERME 9 in Prague – K. Krainer & N. Vondrová	59
Citation Profiles in zbMATH – O. Teschke	62
Book Reviews	64
Letter to the Editor – P. Donato	67
Personal Column	68

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work very hard; seeing this had a huge impact in forming my work habits. I am also completely convinced that exchanging ideas facilitates progress significantly. And it really helps to be in touch with a few role models, not just one. You observe them, contemplate and choose your own style (e.g. I feel I am most creative in the morning in bed).

Another difference I noticed is that the classes are much more focused and detailed in the US than in Japan, sometimes involving open problems. This provides the opportunity to think deeply about one subject. Every mathematician needs to establish an area that they understand very deeply: a home ground. Without having one we cannot write papers, and mastering one subject generates confidence. Once we have one, acquiring the second is usually easier, as we start to see connections. My home field is numerical linear algebra and I don't know how many I will try to acquire in the future but I am certain that my home field(s) will provide unique guidance whenever I see a problem. It wouldn't hurt to try to have one early, perhaps before you contemplate going abroad.



Yuji Nakatsukasa is an assistant professor at the University of Tokyo. He is a numerical analyst focusing on matrix eigenvalue problems. Originally from Japan, he obtained a PhD from the University of California at Davis in 2011 and

was a postdoctoral research associate at the University of Manchester before going back to Tokyo in 2013. He was awarded the Leslie Fox Prize in 2011 and the Alston Householder Award in 2014.

### A Presentation of the Italian Association of Mathematics Applied to Economic and Social Sciences

Marco LiCalzi (Università Ca' Foscari Venezia, Italy)

The Italian Association of Mathematics Applied to Economic and Social Sciences (AMASES) is a tightly knit mathematical society with a focused scope. It was founded in 1976 and comprises about 450 members, most of whom work or have professional collaborations in Italy. Its main goals focus on promoting theoretical and applied research, as well as general public awareness of all areas of mathematics as applied to economics, finance, insurance, management and social sciences at large.

This short note reviews the history of the society and highlights its present activities. The roots of AMASES lie in the fields of financial mathematics and actuarial sciences, where some of its intellectual forerunners used to work professionally before or whilst pursuing academic research. One was Francesco Paolo Cantelli (1875–1966), whose name graces the Borel-Cantelli lemma and the Glivenko-Cantelli theorem. He spent 20 years at the National Institute for Security Deposits and Loans, before entering academia as a professor of actuarial mathematics and founding the Italian Actuarial Institute.

Similarly, Bruno de Finetti (1906–1985) spent 15 years with Assicurazioni Generali at the beginning of his career. In recognition of its intellectual debt to him, AMASES named him Honorary President of the Association from 1983 until his death. Besides his role as a staunch promoter of subjective probability, he managed to lead outstanding careers as a statistician and as an actuary, as well as being an influential thinker on social and political issues. His combination of talents and his impact on improving society is still an inspiring example for the AMASES community.

In the 1960s, as the interplay between academia and mathematical business professions intensified, a small group of mathematicians from the faculties of economics, business administration and statistics throughout Italy realised the need for an institution devoted to coordinating and stimulating research and education in the mathematical applications for these fields. The first exploratory meeting took place in Trieste in 1966, attended by 15 distinguished applied mathematicians, including Bruno



From the left: Bruno de Finetti, on his appointment as honorary president of AMASES (Bologna 1983), Luciano Daboni, Claudio de Ferra (both past presidents of AMASES) and Giuseppe Ottaviani.

#### Societies

de Finetti himself and Giuseppe Ottaviani (1914–1994), a beloved student of Cantelli at the Faculty of Economics in Rome and his natural academic heir.

The association was officially established on 27 July 1976 by 35 founding fellows. Its first annual conference took place in Pisa on 4–5 November 1977. Since its inception, the official seat of the association has been located in Milan (currently at Bocconi University).

AMASES has been holding its annual conference since 1977, typically in early September. Every conference hosts a few invited lectures, aimed at representing the range of approaches and applications pursued within the scope of the association. This has now come to include fields as diverse as mathematical finance, economic theory, management science and decision and game theory, as well as computational techniques. The special attention of AMASES towards computation has a long history, as witnessed by the fact that the last Honorary President, Mario Volpato (1915–2000), was one of the founders and Vice-President of CINECA, the largest Italian computing centre.



Harold W. Kuhn delivers his lecture "A Life in Optimization: Tales of Eponymy" at the 33rd AMASES Annual Conference in Parma, 1 September 2009.

AMASES sponsors related research and actively supports satellite thematic conferences and summer schools. It has introduced special awards both for the best doctoral dissertations and for the best papers presented by young researchers at the annual conference. Under the umbrella of the Italian Federation for Applied Mathematics, it has joined forces with the Italian Association for Operations Research (AIRO) and the Italian Association for Applied and Industrial Mathematics (SIMAI) to promote a wider spectrum of activities in applied mathematics.

AMASES has been publishing a scientific journal since 1978. Until 1999, the masthead was Rivista di Matematica per le Scienze Economiche e Sociali (Review of Mathematics for the Economic and Social Sciences); this journal accepted papers in Italian, English and French. In 2000, AMASES expanded the scope of the journal and gave it a more international slant. The title was changed to Decisions in Economics and Finance: A Journal of Applied Mathematics (nicknamed DEF) and English became the only official language, while publication and technical assistance were entrusted to Springer-Verlag. The aims and scope state that DEF "provides a specialized forum for the publication of research in all areas of mathematics as applied to economics, finance, insurance, management and social sciences. Primary emphasis is placed on original research concerning topics in mathematics or computational techniques which are explicitly motivated by or contribute to the analysis of economic or financial problems".



Marco LiCalzi holds a PhD in Decision Sciences from Stanford University. He is a professor of mathematical methods for economics at Università Ca' Foscari Venezia and has held visiting positions in France, UK and USA. He has served as

secretary for Amases and as editor for its journal. His research interests lie at the interface of decision theory and game theory.

