



«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
TO PAY A PERMANENT TRIBUTE TO GALILEO GALILEI, FOUNDER OF MODERN SCIENCE  
AND TO ENRICO FERMI, THE «ITALIAN NAVIGATOR», FATHER OF THE WEAK FORCES



# INTERNATIONAL SCHOOL OF MATHEMATICS «GUIDO STAMPACCHIA»

## 61st Workshop: MULTIVARIATE APPROXIMATION AND INTERPOLATION WITH APPLICATIONS

ERICE-SICILY: 25 – 30 SEPTEMBER 2013

Sponsored by the: • Italian Ministry of Education, University, and Research • Sicilian Regional Government • University of Milano-Bicocca  
• University of Palermo • University of Messina • Istituto Nazionale di Alta Matematica • Italian Society for Applied and Industrial Mathematics

### PROGRAMME AND LECTURERS

#### *Modelling Geometric beyond NURBS*

*Linear and Non-Linear Subdivision Schemes*

*Numerical Methods on Manifolds*

*Multivariate Approximation and Interpolation*

*Indo-Arab Numbering System*

*Numbers, numerals and numeral systems on computations*

- N. AHMED, Université de Skikda, DZ
- R. BEATSON, University of Canterbury, NZ
- C. BETTINI, Ministry of Defense, IT
- L. BOS, University of Verona, IT
- M. BOZZINI, University of Milan-Bicocca, IT
- J. CARNICER, University of Zaragoza, ES
- C. CONTI, University of Florence, IT
- M. COTRONEI, Mediterranean University of Reggio Calabria, IT
- O. DAVYDOV, University of Strathclyde, Glasgow, UK
- C. DE BOOR, University of Wisconsin-Madison, WI, US
- S. DEKEL, Tel-Aviv University and GE Healthcare, IL
- S. DE MARCHI, University of Padova, IT
- N. DYN, Tel-Aviv University, IL
- U. REIF, Darmstadt University of Technology, DE
- G. FASSHAUER, Illinois Institute of Technology, Chicago, IL, US
- M. FLOATER, University of Oslo, NO
- J. GUENOT, University of Calabria, Cosenza, IT
- T. HANGELBROEK, University of Hawaii, Manoa, Honolulu, HI
- K. HORMANN, University of Lugano, CH

- K. JETTER, University of Hohenheim, Stuttgart, DE
- E. KNOBLOCH, Technische Universität Berlin, DE
- T. LYCHE, University of Oslo, NO
- D. LEVIN, Tel-Aviv University, IL
- J.-L. MERRIEN, INSA, Rennes, FR
- C. MANNI, University of Rome "Tor Vergata", IT
- K. MØRKEN, University of Oslo, NO
- Z. NASHED, University of Central Florida, Orlando, FL, US
- P. OSWALD, Jacobs University Bremen, DE
- J.M. PEÑA, University of Zaragoza, Spain
- F. PITOLLI, University of Rome "La Sapienza", IT
- C. RABUT, INSA, Toulouse, FR
- C.S. ROERO, University of Torino, IT
- L. ROMANI, University of Milan-Bicocca, IT
- A. RON, University of Wisconsin-Madison, WI, US
- M. ROSSINI, University of Milan-Bicocca, IT
- T. SAUER, University of Passau, DE
- R. SCHABACK, University of Göttingen, DE
- L. SCHUMAKER, Vanderbilt University, Nashville, TN, US
- Y. SERGEYEV, University of Calabria, Cosenza, IT
- T. SOROKINA, Towson University, MD, US
- J. STÖCKLER, Dortmund University, DE
- T. TONIETTI, University of Pisa, IT
- H. WENDLAND, Oxford University, UK

#### PURPOSE OF THE WORKSHOP

This Workshop, that is the 11th Conference of MAIA series, focuses on theoretical and applicative aspects of Numerical Approximation, which nowadays finds a great impact not only in the more strictly related areas of mathematics and computer science, but also in many different disciplines like biomedical sciences, geology, meteorology, and so on. The strong interdisciplinarity of this research area appears very promising in the achievement of new results not only in the context of Numerical Analysis and "contiguous" disciplines, but even in distant fields. This is certainly an active and dynamic research area, still in rapid evolution, which offers important topics of study concerning both purely theoretical problems and practical aspects, such as the design of fast and efficient computational methods to support the development of new technologies in all applied sciences. The research themes that will receive greater attention in the Workshop include: Approximation and Interpolation of scattered data, Linear and non-linear subdivision, Geometric Modelling. The Workshop aims at presenting the state-of-the-art and the current research results in all the above topics, as well as to outline many challenging open problems and new trends in the field. Other equally important goals of the Workshop are to bring together a small number of international researchers which are the leaders in the field of Multivariate Approximation and Interpolation and their Applications, as well as to encourage a lively exchange of new ideas and excellent networking opportunities for the upcoming generation of researchers in the field. Within this Workshop a special session, entitled "The Number Road", will be held on Sept. 27, 2013. This session will be devoted to the Indo-Arab numbering system, its history, its transfer from North-Africa to Pisa by Fibonacci, its influence on the development of science and culture in western countries.

#### APPLICATIONS

Persons wishing to attend the Workshop should apply by sending an e-mail to:

- Professor Mira BOZZINI  
Dipartimento di Matematica e Applicazioni  
University of Milano-Bicocca - Via Cozzi, 53 - 20125 Milano, Italy  
Tel +39.02.6448 5722 - Fax +39.02.6448 5705  
e-mail: [mira.bozzini@unimib.it](mailto:mira.bozzini@unimib.it)

They should specify: date and place of birth, together with current nationality; affiliation; address, e-mail address.

**Closing Date for Applications: 26 July 2013**

#### POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.» This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchises, by his son Aeneas, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

**More information about the «Ettore Majorana» Foundation and Centre for Scientific Culture can be found on the WWW at the following address:**  
<http://www.csem.infn.it>

More information about the Workshop can be found at the following address:  
<http://www.dmi.unime.it/maia2013>

**PLEASE NOTE:** Participants must arrive on 6 September, not later than 6 p.m.