

Preface

The present issue of *Note di Matematica* is devoted to part of the Proceedings of the International Conference FAATNA2022 (Functional Analysis, Approximation Theory and Numerical Analysis), held in Matera, a beautiful city located in the southern Italian region of Basilicata and an UNESCO World Heritage Site, on July 5-8, 2022.

The main source of inspiration for FAATNA conference was the International Conference FAAT (Functional Analysis and Approximation Theory), held in the seaside town of Maratea (Potenza, Italy). That conference, which was ideated by Professor Francesco Altomare and Professor Giuseppe Mastroianni, lasted for six editions from 1989 to 2009, and it was conceived as a way to bring together experienced and young researchers working in different areas of Mathematics.

Inspired by that long lasting tradition, the FAATNA conference was devoted to a broad variety of topics, including, but not limited to, approximation by linear or non linear operators, orthogonal polynomials, methods of functional analysis in approximation problems and functional equations, linear spaces and algebras of operators, function spaces, constructive approximation, numerical integration, numerical methods for integral and differential equations, numerical linear algebra.

The conference was organized by the Department of Mathematics, Computer Science and Economics of the University of Basilicata in collaboration with the Department of Mathematics of the University of Bari Aldo Moro and the Department of Mathematics “Giuseppe Peano” of the University of Torino. The Organizing Committee included Professors Donatella Occorsio (chair), Maria Carmela De Bonis, Concetta Laurita, Vita Leonessa, and Maria Grazia Russo, from the University of Basilicata, Mirella Cappelletti Montano, from the University of Bari Aldo Moro, and Incoronata Notarangelo, from the University of Torino. The Local Organizing Committee was composed by the Ph.D. students Anna Lucia Laguardia, Sandro Lancellotti, Domenico Mezzanotte, Federico Nudo, and Valeria Sagaria.

The conference was attended by about two hundred and fifty mathematicians coming from thirty-three different countries. Most of the participants were in Matera in presence; due to COVID pandemic, it was also possible to attend the conference by remote.

The conference was financially supported by the Department of Mathematics, Computer Science and Economics of the University of Basilicata, the Department of Mathematics and Physics “Ennio de Giorgi” of the University of Salento, the Dolomites Research Notes on Approximation board, IMACS, and GNCS of INdAM. Many institutions kindly offered their patronage, namely



Courtesy of Professor Ugo Erra, University of Basilicata

- University of Basilicata,
- University of Bari Aldo Moro,
- Istituto per le Applicazioni del Calcolo “Mauro Picone”, CNR,
- Department of Mathematics and Physics “Ennio de Giorgi”, University of Salento,
- Department of Mathematics “Giuseppe Peano”, University of Torino,
- Research ITalian network on Approximation (RITA),
- the working group U.M.I. “Teoria dell’ Approssimazione e Applicazioni” - T.A.A.,
- Basilicata regional administration,
- Municipality of Matera.

The scientific program included eight Plenary Lectures, thirteen Special Sessions, and a Contributed Poster Session. More details about the conference and

the complete list of the Special Sessions and the participants are available on the website

<http://web.unibas.it/faatna22/index.html>.

The Main Speakers were

- Francesco Altomare, University of Bari Aldo Moro (Italy),
- Len Bos, University of Verona (Italy),
- Francisco Marcellán Español, Universidad Carlos III de Madrid (Spain),
- Hrushikesh Mhaskar, Claremont Graduate University (USA),
- Gradimir V. Milovanovic, Serbian Academy of Sciences and Arts (Serbia),
- Ioan Raşa, Technical University of Cluj-Napoca (Romania),
- Gianluca Vinti, University of Perugia (Italy),
- Yuesheng Xu, Old Dominion University (USA).

The richness of the scientific program is reflected in the variety of topics of the papers in the present issue, which range from Approximation Theory, Frame Theory, Harmonic Analysis to Parabolic-Hyperbolic Type Equations, Difference Equations, Functional Analysis. We are deeply grateful to all the contributors and the anonymous referees for their commitment in this project.

Finally, we wish to express our gratitude to the Editor in Chief of *Note di Matematica*, Professor Domenico Perrone, for accepting to publish a special issue devoted to the conference FAATNA20>22 and to Professor Francesco Catino for supporting us during the preparation of this issue.

The Editors

Angela Anna Albanese
Francesco Altomare
Michele Campiti
Mirella Cappelletti Montano
Vita Leonessa

