# Multivariate Approximation: Theory and Applications 2020

Laura Angeloni[a] · Costanza Conti[b] · Stefano De Marchi[c] · Elisa Francomano[d] · Gianluca Vinti[a]

### Abstract

A summary of the main facts about the Conference 'Multivariate Approximation: Theory and Applications' (MATA 2020) held at the Department of Mathematics and Computer Science of the University of Perugia (Italy), on January 16-18, 2020 and the contents of the associated Special Issue appearing on Dolomites Research Notes on Approximation, are here reported.

This Special Issue collects peer-reviewed original articles dealing with further developments of research results presented at MATA2020, the International Conference 'Multivariate Approximation: Theory and Application' held at the Department of Mathematics and Computer Science, University of Perugia (Italy), on January 16-18, 2020.

The complete details of the conference remain available on the webpage (http://mata2020.dmi.unipg.it) but, here, we can summarize the main statistics of MATA2020 as follows. Out of 96 participants - from all over Italy but also from abroad - we had 4 plenary talks, 25 contributed talks and 11 posters in the field of Approximation Theory. Specifically, talks and posters dealt with Approximation Theory from theoretical or numerical point of view with many interesting applications.

The topics of this Special Issue cover important new research topics in Approximation Theory like multivariate sampling operators [1, 7], quadrature at "fake nodes" [5], new numerical approaches for integral equations [6, 4, 3], filtered polynomial interpolation [8], new regularity properties for Hermite subdivision schemes [9] and positive solutions of a nonlinear parameter-depending algebraic system [2].

We certainly would like to thank the conference organizers, the speakers and all the participants for making the conference possibile. Last but not least we gratefully acknowledge support from the organizations: Department of Mathematics and Computer Science, University of Perugia, University of Perugia and GNCS-GNAMPA groups of INdAM but also to the Italian Network of Approximation RITA for inspiring several collaborations that lead to the results presented during the Conference and collected in this Special Issue.

## References

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[a] Department of Mathematics and Computer Science, University of Perugia, Italy
[b] Department of Industrial Engineering, University of Florence, Italy
[c] Department of Mathematics "Tullio Levi-Civita", University of Padova, Italy
[d] Department of Engineering, University of Palermo, Italy

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**Figure 1:** The group of participants to MATA 2020 conference