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Special Issue on Topological Algebras, Frames and Wavelets

PREFACE

The topics like Topological Algebras, Frames and Wavelets might seem very distant at the first glance. Nevertheless, in mathematics, everything is somehow connected.

For example, it is known that there are always some wavelets, associated to some graph C^* -algebras. But C^* -algebras are a special case of Topological algebras. Frames, on the other hand, are closely associated with wavelets. One can also study frames in various topological spaces.

Both frames and wavelets are nowadays also applied in the study of time-frequency analysis. Segal topological algebras, especially Feichtinger's algebra, mentioned in the first paper of this volume, have been also used in time-frequency analysis and the study of Gabor frames.

The main "building block" of a Segal topological algebra is a topological algebra. Hence, the study of topological algebras provides us also some information, usable for Segal topological algebras and through them also for Gabor frames or time-frequency analysis.

So, these three topics - Topological Algebras, Frames and Wavelets - are intertwined through some of their applications. Hence, they are all among topics in so called Applicable Mathematics. An interested reader can find several other intersection points in Mathematics.

The present volume of Poincaré Journal of Mathematical Analysis and Applications is dedicated to the International Conference on Applicable Mathematics (ICAM 2018), held on February 19th - February 20th at the Motilal Nehru College, University of Delhi. It contains 6 selected papers, authored by the participants of ICAM 2018.

There were in total 82 participants, including 10 volunteers, at the ICAM 2018. In the program of the conference there were 5 plenary lectures, 2 invited lectures, 6 short talks and 45 paper presentations. In addition to Indian participants, there were also participants from Estonia, Iran and Mexico.

It was the first time, when the conference under the name International Conference on Applicable Mathematics was held. Hopefully, there will be more conferences under the same title in the near future, because the conference was a great success.

Many thanks to the authors of the papers of the present volume and also to the referees of the papers for sparing with us their valuable time and expertise,

ensuring that only the papers with high scientific quality were selected to the present volume.

The editors wish to thank Motilal Nehru College, University of Delhi, Delhi for providing hospitality and support, and to all those who helped make this conference such a great success. We also thank Dr. Sumit Kumar Sharma for providing excellent technical assistance.

Last but not least. The editors thank Poincare Publishers for publishing the proceedings of the workshop in a special issue (Vol. 2019 (1)) of Poincare Journal of Analysis & Applications.

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