Preface

This volume contains the proceedings of the conference "Groups & Algebras in Bicocca for Young algebraists" (GABY 2022), that took place at the University of Milano – Bicocca, Italy, from June 13 to 17, 2022 (originally scheduled for 2020 and postponed due to the covid emergency). This is the second edition of the conference, which was held for the first time in 2018 with the aim of initiate a series of biennial conferences dedicated to young researchers in algebra.

GABY 2022 was attended by more than 70 young algebraists, from several different countries, including Armenia, Belgium, England, France, Germany, India, Italy, Israel, Poland, Portugal, Spain. It offered a friendly environment to share mathematical ideas, but also to think over important aspects of everyday life, thanks to the E.D.I. (Equity, Diversity and Inclusion) session organized as part of the event. More information on the conference GABY and on the EDI session can be found on the webpage:

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https://staff.matapp.unimib.it/~/gaby/gaby2022/
                    index.html.
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During the conference, Ramla Abdellatif (University of Picardie Jules Verne), Anna Giordano Bruno (University of Udine) and Davide Spriano (Oxford University) presented three mini-courses, of four hours each. This volume includes the extended notes of such mini-courses, prepared by the three main speakers and subjected to peer-review.

The Editors believe this volume will be beneficial for early career mathematicians, who need to get familiar with a new topic and with the open questions related to it, and also for experts in the field, who can easily trace here some long-known results and recent developments in the subject.

The proceedings are edited by the non-profit association "AGTA — Advances in Group Theory and Applications", which

the Editors thank for the opportunity to publish the volume and start a collaboration that hopefully will turn this volume into the first one in a long series of proceedings serving as surveys on various topics of algebra.

The Editors are grateful to the authors for their engagement in the project and to everyone who contributed to the organization of the conference. They also wish to express their appreciation for the following agencies and institutions, that have contributed financial support: University of Milano Bicocca, GNSAGA of INdAM, ABCD of the University of Milano Bicocca, European Women in Mathematics, Department of Mathematics of the University of Milano Bicocca.

Ilaria Castellano
Valentina Grazian
Antonio Ioppolo