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# A foreword by the Guest Editors

The eleventh edition of the *Permutation Patterns* conference series was held in Paris (University Paris Diderot) during the week of July 1–5, 2013. This volume of the *Journal of Combinatorics* is dedicated to the conference; it contains a selection of the works presented at the conference, together with additional articles from this research area.

The *Permutation Patterns* conference series started at the University of Otago (New Zealand) in 2003, under the influence of Mike Atkinson and Michael Albert. Since then, the conference has been held once per year, and has become a structuring event for the increasingly growing research community in permutation patterns. In 2013, Mike Atkinson was our special guest for the first edition of the conference in France, where we also celebrated the tenth anniversary of the conference and honoured Mike on the occasion of his retirement.

The 2013 conference attracted over 80 participants, a record participation. A notable demographic feature of the *Permutation Patterns* conferences is the important participation of students (from the undergraduate level), who have the opportunity to mix with senior and renowned researchers in combinatorics. In 2013, this diversity in the group was again visible at the conference, and it is also apparent in the papers collected in this volume. The regular participants of the conference, mostly from the USA, New Zealand, and Europe, were present again this year. We are happy that many students from overseas could participate, which was made possible by NSA and NSF grants. We also note with pleasure that our research community is developing geographically, with increased participation from Europeans (mostly from France and Italy) and Asians (from Japan and Korea).

The scientific program of the conference consisted of 40 contributed talks, 2 invited lectures, and an open problems session. The invited lectures were delivered by Sergi Elizalde, about *Consecutive Patterns in Permutations*, and by Stéphane Vialette, about *Pattern Matching in Permutations*. Several lines of research on permutation patterns are represented in the program of the conference and in the selection of articles in this volume. Enumerative combinatorics and algorithms, which are the main two historic research trends, are still well represented. We are also pleased to acknowledge contributions in other fields of discrete mathematics (in particular probability theory, and this is a notable novelty) and computer science. This has

been the case for the past few years, showing the dynamism of the research on permutation patterns, in the broader context of modern mathematics.

The articles presented in these pages constitute a selection of the best works that were submitted to this special volume. There were, however, many other very fine submissions, which could not be published here but will certainly be published in a different medium. This shows again the demographic and scientific vitality of the permutation patterns research field, for which we can foresee only a radiant future.

We thank all the participants of *Permutation Patterns 2013*, the contributors to this volume, and all the members of the scientific and organizing committees: the success of the conference and of this special issue would not be possible without the hard work of many people dedicated to this beautiful area of research. In addition, we gratefully acknowledge the financial and material support provided by the NSA, the NSF, University Paris Diderot, University Paris 13, École Polytechnique, the CNRS (via its labs LIAFA, LIPN, LIX and the GdR-IM) and the ANR (project Magnum).

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