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Journal of Discrete Algorithms

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Editorial



This volume contains full versions of selected papers presented at the 28th International Workshop on Combinatorial Algorithms (IWOCA) held 17–21 July 2017 in Newcastle, Australia, sponsored by Priority Research Centre for Computer Assisted Research Mathematics and its Applications (CARMA) and the School of Electrical Engineering & Computing, The University of Newcastle, with support from the European Association for Theoretical Computer Science. At that meeting, 30 papers were presented, chosen after careful review from a total of 66 submissions. These contributions, together with five papers based on invited presentations to the meeting, were published in the IWOCA 2017 Proceedings (Springer Lecture Notes in Computer Science LNCS 10765). In this collection 14 articles are published, the result of a second, rigorous refereeing of substantially extended versions of conference papers.

IWOCA began in 1989 as the Australasian Workshop on Combinatorial Algorithms (AWOCA), but was renamed in 2007 in order to reflect a more ambitious research mission. It seeks to provide an advanced forum for researchers who design algorithms for the many combinatorial problems that underlie computer applications in science, engineering and business. See <http://www.iwoca.org>. The meetings since 2007 have been held across four continents: Newcastle, Australia; Nagoya, Japan; Moravia, Czech Republic; London, England; Victoria, Canada; Kalasalingam University, Tamil Nadu, India; Rouen, France; University of Wisconsin-Superior, Duluth, USA; Verona, Italy; Helsinki, Finland; then in 2017 back to its roots in Newcastle.

The return to Newcastle was motivated by a sad event, the death of Professor Mirka Miller in early 2016. As a distinguished researcher in combinatorial problems, Mirka had been a leading force in the development of AWOCA since its inception, and a founding member of the IWOCA Steering Committee. The first paper in this volume is a survey of Mirka's contribution to one specific research area, security of statistical databases. For more about her career, see

<https://www.austms.org.au/Publ/Gazette/2016/July16/ObitMiller.pdf>

The papers published here fall primarily into the area of graph/network theory/algorithms and their numerous applications, with two representatives from applied combinatorics on words (string algorithms). Thus all of them deal with problems that are fundamentally combinatorial. Within these broad constraints, the papers have been arranged in this volume into six categories:

- Privacy
- Computational Complexity
- Heuristics
- String Algorithms
- Graph Theory & Combinatorics
- Approximation, Parameterized Algorithms & Mixed Integer Programming

The editors of this special issue of the Journal of Discrete Algorithms wish particularly to thank the referees who have given generously of their time to review the submitted papers, and whose valuable work has contributed to the high quality of the final published papers.

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