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Ronald Cools · Dirk Nuyens
Editors

Monte Carlo and Quasi-Monte Carlo Methods

MCQMC, Leuven, Belgium, April 2014

 Springer

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Preface

This volume represents the refereed proceedings of the Eleventh International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing which was held at the KU Leuven in Belgium from 6 to 11 April 2014. It contains a limited selection of articles based on presentations given at the conference. The conference program was arranged with the help of an international committee consisting of the following members:

- Ronald Cools (Belgium, KU Leuven)—Chair
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- Josef Dick (Australia, University of New South Wales)
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- Xiaoqun Wang (China, Tsinghua University)
- Grzegorz Wasilkowski (USA, University of Kentucky)
- Henryk Woźniakowski (Poland, University of Warsaw)

This conference continued the tradition of biennial MCQMC conferences initiated by Harald Niederreiter, held previously at the following places:

1. Las Vegas, USA (1994)
2. Salzburg, Austria (1996)
3. Claremont, USA (1998)
4. Hong Kong (2000)
5. Singapore (2002)
6. Juan-Les-Pins, France (2004)
7. Ulm, Germany (2006)
8. Montreal, Canada (2008)
9. Warsaw, Poland (2010)
10. Sydney, Australia (2012)

The next conference will be held at Stanford University, USA, in August 2016.

The proceedings of these previous conferences were all published by Springer-Verlag, under the following titles:

- *Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing* (H. Niederreiter and P.J.-S. Shiue, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 1996* (H. Niederreiter, P. Hellekalek, G. Larcher and P. Zinterhof, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 1998* (H. Niederreiter and J. Spanier, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 2000* (K.-T. Fang, F.J. Hickernell and H. Niederreiter, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 2002* (H. Niederreiter, ed.)
- *Monte Carlo and Quasi-Monte Carlo Methods 2004* (H. Niederreiter and D. Talay, eds.)

- *Monte Carlo and Quasi-Monte Carlo Methods 2006* (A. Keller, S. Heinrich and H. Niederreiter, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 2008* (P. L'Ecuyer and A. Owen, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 2010* (L. Plaskota and H. Woźniakowski, eds.)
- *Monte Carlo and Quasi-Monte Carlo Methods 2012* (J. Dick, F.Y. Kuo, G.W. Peters and I.H. Sloan, eds.)

The program of the conference was rich and varied with 207 talks. Highlights were the invited plenary talks, the tutorials and a public lecture. The plenary talks were given by Steffen Dereich (Germany, Westfälische Wilhelms-Universität Münster), Peter Glynn (USA, Stanford University), Wenzel Jakob (Switzerland, ETH Zürich), Makoto Matsumoto (Japan, Hiroshima University), Harald Niederreiter (Austria, Austrian Academy of Sciences), Erich Novak (Germany, Friedrich-Schiller-Universität Jena), Christian Robert (France, Université Paris-Dauphine and UK, University of Warwick) and Raul Tempone (Saudi Arabia, King Abdullah University of Science and Technology). The tutorials were given by Mike Giles (UK, Oxford University) and Art Owen (USA, Stanford University), and the public lecture was by Jos Leys.

The papers in this volume were carefully refereed and cover both theory and applications of Monte Carlo and quasi-Monte Carlo methods. We thank the reviewers for their extensive reports.

We gratefully acknowledge financial support from the KU Leuven, the city of Leuven, the US National Science Foundation and the FWO Scientific Research Community Stochastic Modelling with Applications in Financial Markets.

Leuven
December 2015

Ronald Cools
Dirk Nuyens

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