Monte Carlo and Quasi-Monte Carlo Methods 2008

Pierre L'Ecuyer • Art B. Owen
Editors

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Preface

This volume represents the refereed proceedings of the Eighth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, which was held at the University of Montréal, from 6–11 July, 2008. It contains a limited selection of articles based on presentations made at the conference. The program was arranged with the help of an international committee consisting of:

Ronald Cools, *Katholieke Universiteit Leuven*
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Wolfgang Ch. Schmid, *University of Salzburg*
Ian H. Sloan, *University of New South Wales*
Jerome Spanier, *University of California, Irvine*
Bruno Tuffin, *IRISA-INRIA, Rennes*
Henryk Woźniakowski, *Columbia University*.

The local arrangements (program production, publicity, web site, registration, social events, etc.) were ably handled by Carole Dufour (GERAD), Marilyne Lavoie (GERAD), Louis Pelletier (CRM), Marie Perreault (GERAD), and Suzette Paradis (CRM). Francine Benoit (GERAD) helped with editing the proceedings.

This conference continued the tradition of biennial MCQMC conferences initiated by Harald Niederreiter. They were begun at the University of Nevada in Las Vegas, Nevada, USA, in June 1994 and followed by conferences at the University of Salzburg, Austria, in July 1996, the Claremont Colleges in Claremont, California, USA, in June 1998, Hong Kong Baptist University in Hong Kong, China, in November 2000, the National University of Singapore, Republic of Singapore, in November 2002, the Palais des Congrès in Juan-les-Pins, France, in June 2004, and Ulm University, Germany, in July 2006. The next MCQMC conference will be held in Warsaw, Poland, in August 2010.

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 and S. Heinrich and H. Niederreiter, eds.).

The program of the conference was rich and varied with over 135 talks being presented. Highlights were the invited plenary talks given by Josef Dick (University of New South Wales), Arnaud Doucet (University of British Columbia), Daan Frenkel (University of Cambridge), Paul Glasserman (Columbia University), Christiane Lemieux (University of Waterloo), Jun Liu (Harvard University), Klaus Ritter (TU Darmstadt), Jeffrey Rosenthal (University of Toronto), Wolfgang Schmid (University of Salzburg), and Andrew Stuart (Warwick University). The papers in this volume were carefully screened and cover both the theory and the applications of Monte Carlo and quasi-Monte Carlo methods.

We thank the anonymous reviewers for their reports and many others who contributed enormously to the excellent quality of the conference presentations and to the high standards for publication in these proceedings by careful review of the abstracts and manuscripts that were submitted.

We gratefully acknowledge generous financial support of the conference by the Centre de Recherches Mathématiques (CRM), the Groupe d'Études et de Recherche en Analyse de Décisions (GERAD), Mathematics for Information Technology

and Complex Systems (MITACS), and the American National Science Foundation (NSF).

Finally, we want to express our gratitude to Springer-Verlag for publishing this volume.

Pierre L'Ecuyer
July 2009 *Art Owen*

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