

Table of Contents

Preface.....	V
Conference Participants	XI
Invited Papers	
Adaptively Learning an Importance Function Using Transport Constrained Monte Carlo <i>Thomas E. Booth</i>	1
What Affects the Accuracy of Quasi-Monte Carlo Quadrature? <i>Fred J. Hickernell</i>	16
Dynamic Creation of Pseudorandom Number Generators <i>Makoto Matsumoto and Takuji Nishimura</i>	56
Constructions of (t, m, s) -Nets <i>Harald Niederreiter</i>	70
Monte Carlo, Quasi-Monte Carlo, and Randomized Quasi-Monte Carlo <i>Art B. Owen</i>	86
Geometrically Convergent Learning Algorithms for Global Solutions of Transport Problems <i>Jerome Spanier</i>	98
Efficiency of Quasi-Monte Carlo Algorithms for High Dimensional Integrals <i>Henryk Woźniakowski</i>	114
Contributed Papers	
Domain Decomposition Methods for Parallel Laser-Tissue Models with Monte Carlo Transport <i>Henry J. Alme, Garry Rodrigue and George Zimmerman</i>	137
Pricing Complex Barrier Options with General Features Using Sharp Large Deviation Estimates <i>Paolo Baldi, Lucia Caramellino and Maria Gabriella Iovino</i>	149
Application of Quasi-Monte Carlo Sampling to the Multi Path Method for Radiosity <i>Francesc Castro and Mateu Sbert</i>	163
Semi-Monte Carlo Light Tracing Applied to the Study of Road Visibility in Fog <i>Eric Dumont</i>	177
Quasi-Monte Carlo Node Sets from Linear Congruential Generators <i>Karl Entacher, Peter Hellekalek and Pierre L'Ecuyer</i>	188

Methods for Generating Random Orthogonal Matrices <i>Alan Genz</i>	199
Comparison of Monte Carlo Algorithms for Obtaining Geometric Convergence for Model Transport Problems <i>Carole Hayakawa and Jerome Spanier</i>	214
Wavelet Monte Carlo Methods for the Global Solution of Integral Equations <i>Stefan Heinrich</i>	227
Sequential Correlated Sampling Methods for Some Transport Problems <i>Rong Kong and Jerome Spanier</i>	238
Error Analysis of Sequential Monte Carlo Methods for Transport Problems <i>Rong Kong and Jerome Spanier</i>	252
Adaptive Importance Sampling Algorithms for Transport Problems <i>Yongzeng Lai and Jerome Spanier</i>	273
Applications of Monte Carlo/Quasi-Monte Carlo Methods in Finance: Option Pricing <i>Yongzeng Lai and Jerome Spanier</i>	284
A Discrepancy-Based Analysis of Figures of Merit for Lattice Rules <i>T.N. Langtry</i>	296
Grid-Free Simulation of Convection-Diffusion <i>Christian Lécot and Abdoul Koudiraty</i>	311
A Comparison of Monte Carlo, Lattice Rules and Other Low-Discrepancy Point Sets <i>Christiane Lemieux and Pierre L'Ecuyer</i>	326
Higher-Dimensional Properties of Non-Uniform Pseudo-Random Variates <i>Josef Leydold, Hannes Leeb and Wolfgang Hörmann</i>	341
Quasi-Monte Carlo Simulation Methods for Measurement Uncertainty <i>Liming Li</i>	356
Linear Programming Bounds for Ordered Orthogonal Arrays and (T, M, S) -Nets <i>William J. Martin</i>	368
A Practical Approach to the Error Estimation of Quasi-Monte Carlo Integrations <i>Hozumi Morohosi and Masanori Fushimi</i>	377
Applications of a Hybrid-Monte Carlo Sequence to Option Pricing <i>Giray Ökten</i>	391
Monte Carlo Simulation of Photometrical Measurements in Fog <i>Giselle Paulmier and Victor Carta</i>	407

Variance Reduction Techniques for Large Scale Risk Management <i>Henry Schellhorn and Flora Kidani</i>	419
Improvements and Extensions of the “Salzburg Tables” by Using Irreducible Polynomials <i>Wolfgang Ch. Schmid</i>	436
A LeVeque-Type Lower Bound for Discrepancy <i>Francis Edward Su</i>	448
The Diaphony and the Star-Diaphony of Some Two-Dimensional Sequences <i>Yi-Jun Xiao</i>	459