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Titolo	Uniform distribution and Quasi-Monte Carlo methods : discrepancy, integration and applications / / edited by Peter Kritzer [and three others]
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Nota di contenuto	Front matter -- Preface -- Contents -- Metric number theory, lacunary series and systems of dilated functions / Aistleitner, Christoph -- Strong uniformity / Beck, József -- Discrepancy theory and harmonic analysis / Bilyk, Dmitriy -- Explicit constructions of point sets and sequences with low discrepancy / Dick, Josef / Pillichshammer, Friedrich -- Subsequences of automatic sequences and uniform distribution / Drmota, Michael -- On Atanassov's methods for discrepancy bounds of low-discrepancy sequences / Faure, Henri -- The hybrid spectral test: a unifying concept / Hellekalek, Peter -- Tractability of multivariate analytic problems / Kritzer, Peter / Pillichshammer, Friedrich / Woniakowski, Henryk -- Discrepancy estimates for sequences: new results and open problems / Larcher, Gerhard -- A short introduction to quasi-Monte Carlo option pricing / Leobacher, Gunther -- The construction of good lattice rules and polynomial lattice rules / Nuyens, Dirk -- Index -- Backmatter
Sommario/riassunto	This book is summarizing the results of the workshop "Uniform Distribution and Quasi-Monte Carlo Methods" of the RICAM Special Semester on "Applications of Algebra and Number Theory" in October 2013. The survey articles in this book focus on number theoretic point

constructions, uniform distribution theory, and quasi-Monte Carlo methods. As deterministic versions of the Monte Carlo method, quasi-Monte Carlo rules enjoy increasing popularity, with many fruitful applications in mathematical practice, as for example in finance, computer graphics, and biology. The goal of this book is to give an overview of recent developments in uniform distribution theory, quasi-Monte Carlo methods, and their applications, presented by leading experts in these vivid fields of research.