Record Nr. UNINA9910300101703321 Autore Martino Luca Titolo Independent Random Sampling Methods / / by Luca Martino, David Luengo, Joaquín Míguez Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-319-72634-X Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (xii, 280 pages) Collana Statistics and Computing, , 1431-8784 Disciplina 519.52 Soggetti Statistics Computer science—Mathematics Economics, Mathematical Statistics and Computing/Statistics Programs Mathematics of Computing Quantitative Finance Statistical Theory and Methods Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Direct methods -- Accept-Reject methods -- Adaptive Nota di contenuto rejection sampling methods -- Ratio of Uniforms -- Independent sampling for multivariate densities -- Asymptotically independent samplers -- Summary and outlook -- A. Acronyms and abbrevations --B. Notation -- C. Jones' RoU generalization -- D. Polar transformation. This book systematically addresses the design and analysis of efficient Sommario/riassunto techniques for independent random sampling. Both general-purpose approaches, which can be used to generate samples from arbitrary probability distributions, and tailored techniques, designed to efficiently address common real-world practical problems, are introduced and discussed in detail. In turn, the monograph presents fundamental results and methodologies in the field, elaborating and developing them into the latest techniques. The theory and methods are illustrated with a varied collection of examples, which are discussed in detail in the text and supplemented with ready-to-run computer code. The main problem addressed in the book is how to generate independent random samples from an arbitrary probability distribution with the weakest possible constraints or assumptions in a form suitable for practical implementation. The authors review the fundamental results and methods in the field, address the latest methods, and emphasize the links and interplay between ostensibly diverse techniques.