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Altri autori (Persone)	SchererMatthias
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Nota di contenuto	1. Introduction. 1.1. Copulas. 1.2. General classifications of copulas -- 2. Archimedean copulas. 2.1. Motivation. 2.2. Extendible Archimedean copulas. 2.3. Exchangeable Archimedean copulas. 2.4. Hierarchical (H-extendible) Archimedean copulas. 2.5. Other topics related to Archimedean copulas -- 3. Marshall-Olkin copulas. 3.1. The general Marshall-Olkin copula. 3.2. The exchangeable case. 3.3. The extendible case -- 4. Elliptical copulas. 4.1. Spherical distributions. 4.2. Elliptical distributions. 4.3. Parametric families of elliptical distributions. 4.4. Elliptical copulas. 4.5. Parametric families of elliptical copulas. 4.6. Sampling algorithms -- 5. Pair copula constructions. 5.1. Introduction to pair copula constructions. 5.2. Copula construction by regular vine trees. 5.3. Simulation from regular vine distributions. 5.4. Dependence properties. 5.5. Application -- 6. Sampling univariate random variables. 6.1. General aspects of generating random variables. 6.2. Generating uniformly distributed random variables. 6.3. The inversion method. 6.4. Generating exponentially distributed random numbers. 6.5. Acceptance-rejection method. 6.6. Generating normally distributed random numbers. 6.7. Generating lognormal random numbers. 6.8. Generating gamma-distributed random numbers. 6.9. Generating Chi-

square-distributed RNs. 6.10. Generating t-distributed random numbers. 6.11. Generating Pareto-distributed random numbers. 6.12. Generating inverse Gaussian-distributed random numbers. 6.13. Generating stable-distributed random numbers. 6.14. Generating discretely distributed random numbers -- 7. The Monte Carlo method. 7.1. First aspects of the Monte Carlo method. 7.2. Variance reduction methods.

Sommario/riassunto

This book provides the reader with a background on simulating copulas and multivariate distributions in general. It unifies the scattered literature on the simulation of various families of copulas (elliptical, Archimedean, Marshall-Olkin type, etc.) as well as on different construction principles (factor models, pair-copula construction, etc.). The book is self-contained and unified in presentation and can be used as a textbook for advanced undergraduate or graduate students with a firm background in stochastics. Alongside the theoretical foundation, ready-to-implement algorithms and many examples make this book a valuable tool for anyone who is applying the methodology.
