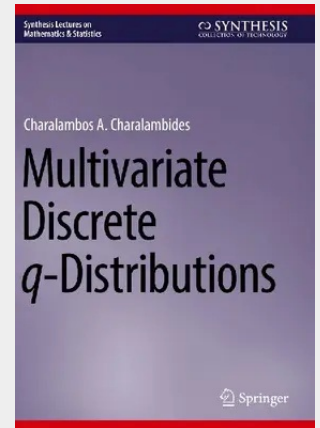


Multivariate Discrete q -Distributions

This book is devoted to the study of multivariate discrete q -distributions, which is greatly facilitated by existing multivariate q -sequences and q -functions. Classical multivariate discrete distributions are defined on a sequence of independent and identically distributed Bernoulli trials, with either being a success of a certain rank (level) or a failure. The author relaxes the assumption that the probability of success of a trial is constant by assuming that it varies geometrically with the number of trials and/or the number of successes. The latter is advantageous in the sense that it permits incorporating the experience gained from the previous trials and/or successes, which leads to multivariate discrete q -distributions. Furthermore, q -multinomial and negative q -multinomial formulae are obtained. Next, the book addresses q -multinomial and negative q -multinomial distributions of the first and second kind. The author also examines multiple q -Polya urn model, multivariate q -Polya and inverse q -Polya distributions.

- Presents definitions and theorems that highlight key concepts and worked examples to illustrate the various applications
- Contains numerous exercises at varying levels of difficulty that consolidate the presented concepts and results
- Includes hints and answers to all exercises via the appendix and is supplemented with an Instructor's Solution Manual

This book is devoted to the study of multivariate discrete q -distributions, which is greatly facilitated by existing multivariate q -sequences and q -functions. Classical multivariate discrete distributions are defined on a sequence of independent and identically distributed Bernoulli trials, with either being a success of a certain rank (level) or a failure. The author relaxes the assumption that the probability of success of a trial is constant by assuming that it varies geometrically with the number of trials and/or the number of successes. The latter is advantageous in the sense that it permits incorporating the experience gained from the previous trials and/or successes, which leads to multivariate discrete q -distributions. Furthermore, q -multinomial and negative q -multinomial formulae are obtained. Next, the book addresses q -multinomial and negative q -multinomial distributions of the first and second kind. The author also examines multiple q -Polya urn model, multivariate q -Polya and inverse q -Polya distributions. Presents definitions and theorems that highlight key concepts and worked examples to illustrate the various applications. Contains numerous exercises at varying levels of difficulty that consolidate the presented concepts and results. Includes hints and answers to all exercises via the appendix and is supplemented with an Instructor's Solution Manual.



42,79 €
39,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783031437151
Medium: Buch
ISBN: 978-3-031-43715-1
Verlag: Springer
Erscheinungstermin: 23.11.2024
Sprache(n): Englisch
Auflage: Erscheinungsjahr 2024
Serie: Synthesis Lectures on Mathematics & Statistics
Produktform: Kartoniert
Gewicht: 248 g
Seiten: 127
Format (B x H): 168 x 240 mm

