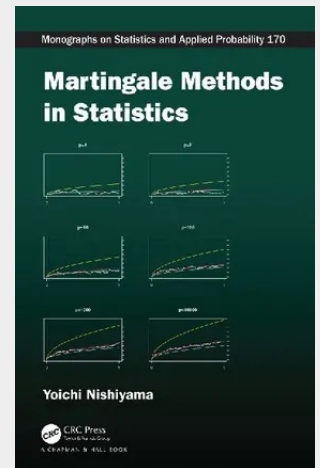


Martingale Methods in Statistics

Martingale Methods in Statistics provides a unique introduction to statistics of stochastic processes written with the author's strong desire to present what is not available in other textbooks. While the author chooses to omit the well-known proofs of some of fundamental theorems in martingale theory by making clear citations instead, the author does his best to describe some intuitive interpretations or concrete usages of such theorems. On the other hand, the exposition of relatively new theorems in asymptotic statistics is presented in a completely self-contained way. Some simple, easy-to-understand proofs of martingale central limit theorems are included. The potential readers include those who hope to build up mathematical bases to deal with high-frequency data in mathematical finance and those who hope to learn the theoretical background for Cox's regression model in survival analysis. A highlight of the monograph is Chapters 8-10 dealing with Z-estimators and related topics, such as the asymptotic representation of Z-estimators, the theory of asymptotically optimal inference based on the LAN concept and the unified approach to the change point problems via "Z-process method". Some new inequalities for maxima of finitely many martingales are presented in the Appendix. Readers will find many tips for solving concrete problems in modern statistics of stochastic processes as well as in more fundamental models such as i.i.d. and Markov chain models.

Martingale Methods in Statistics provides a unique introduction to statistics of stochastic processes written with the author's strong desire to present what is not available in other textbooks. While the author chooses to omit the well-known proofs of some of fundamental theorems in martingale theory by making clear citations instead, the author does his best to describe some intuitive interpretations or concrete usages of such theorems. On the other hand, the exposition of relatively new theorems in asymptotic statistics is presented in a completely self-contained way. Some simple, easy-to-understand proofs of martingale central limit theorems are included. The potential readers include those who hope to build up mathematical bases to deal with high-frequency data in mathematical finance and those who hope to learn the theoretical background for Cox's regression model in survival analysis. A highlight of the monograph is Chapters 8-10 dealing with Z-estimators and related topics, such as the asymptotic representation of Z-estimators, the theory of asymptotically optimal inference based on the LAN concept and the unified approach to the change point problems via "Z-process method". Some new inequalities for maxima of finitely many martingales are presented in the Appendix. Readers will find many tips for solving concrete problems in modern statistics of stochastic processes as well as in more fundamental models such as i.i.d. and Markov chain models.



171,10 €

171,10 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781466582811

Medium: Buch

ISBN: 978-1-4665-8281-1

Verlag: Chapman and Hall/CRC

Erscheinungstermin: 24.11.2021

Sprache(n): Englisch

Auflage: 1. Auflage 2021

Serie: Chapman & Hall/CRC

Monographs on Statistics and Applied Probability

Produktform: Gebunden

Gewicht: 558 g

Seiten: 260

Format (B x H): 161 x 240 mm

