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Soggetti	<p>Statistics</p> <p>Security systems</p> <p>Data mining</p> <p>Biometry</p> <p>Mathematical statistics - Data processing</p> <p>Statistics in Engineering, Physics, Computer Science, Chemistry and Earth Sciences</p> <p>Security Science and Technology</p> <p>Data Mining and Knowledge Discovery</p> <p>Biostatistics</p> <p>Statistics in Business, Management, Economics, Finance, Insurance</p> <p>Statistics and Computing</p>
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Nota di contenuto	<p>Part I Statistical Process Control -- Chapter 1 -- Use of the Conditional False Alarm Metric in Statistical Process Monitoring -- Chapter 2 Design Considerations and Tradeoffs for Shewhart Control Charts -- Chapter 3 On the Calculation of the ARL for Beta EWMA Control Charts -- Chapter 4 Flexible Monitoring Methods for High-Yield Processes -- Chapter 5 An Average Loss Control Chart Under a Skewed Process Distribution -- Chapter 6 ARL-unbiased CUSUM schemes to monitor binomial counts -- Chapter 7 Statistical Aspects of Target Setting for Attribute Data Monitoring -- Chapter 8 MAV control charts for monitoring two-state processes using indirectly observed binary data -- Chapter 9 Monitoring Image Processes – Overview and Comparison</p>

Study -- Chapter 10 Parallelized Monitoring of Dependent Spatiotemporal Processes -- Chapter 11 Product's Warranty Claim Monitoring under Variable Intensity Rates -- Chapter 12 A Statistical (Process Monitoring) Perspective on Human Performance Modeling in the Age of Cyber-Physical Systems -- Chapter 13 Monitoring Performance of Surgeons Using a New Risk-adjusted Exponentially Weighted Moving Average Control Chart -- Chapter 14 Exploring the usefulness of Functional Data Analysis for Health Surveillance -- Chapter 15 Rapid Detection of Hot-spot by Tensor Decomposition with Application to Weekly Gonorrhoea Data -- Chapter 16 An approach to monitoring time between events when events are frequent -- Part II Selected Topics from Statistical Quality Control -- Chapter 17 Analysis of Measurement Precision Experiment with Ordinal Categorical Variables -- Chapter 18 Assessing a Binary Measurement System with Operator and Random Part Effects -- Chapter 19 Concepts, Methods and Tools Enabling Measurement Quality -- Chapter 20 Assessing laboratory effects in key comparisons with two transfer standards measured in two petals: A Bayesian approach -- Chapter 21 Quality control activities are a challenge for reducing variability -- Chapter 22 Is the Benford Law useful for Data Quality Assessment?

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### Sommario/riassunto

This contributed book focuses on major aspects of statistical quality control, shares insights into important new developments in the field, and adapts established statistical quality control methods for use in e. g. big data, network analysis and medical applications. The content is divided into two parts, the first of which mainly addresses statistical process control, also known as statistical process monitoring. In turn, the second part explores selected topics in statistical quality control, including measurement uncertainty analysis and data quality. The peer-reviewed contributions gathered here were originally presented at the 13th International Workshop on Intelligent Statistical Quality Control, ISQC 2019, held in Hong Kong on August 12-14, 2019. Taken together, they bridge the gap between theory and practice, making the book of interest to both practitioners and researchers in the field of statistical quality control.

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