1.	Record Nr.	UNINA9910383837403321
	Titolo	Distribution-Free Methods for Statistical Process Monitoring and Control / / edited by Markos V. Koutras, Ioannis S. Triantafyllou
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
	ISBN	3-030-25081-4
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (IX, 257 p. 53 illus., 17 illus. in color.)
	Disciplina	658.562015195
	Soggetti	Industrial Management Statistics Information technology - Management Statistics in Engineering, Physics, Computer Science, Chemistry and Earth Sciences Business Process Management
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	An Overview of Nonparametric Control Charts -- Distribution-free Control Charts for Monitoring the Location Parameter -- Nonparametric Control Charts for Monitoring the Dispersion Parameter -- Bivariate Nonparametric Control Charts -- Exponentially Weighted Moving Average Control Charts based on Ranks -- Cumulative Sum Control Charts based on Ranks -- Nonparametric Control Charts based on Order Statistics -- The Run-Length Distribution of Nonparametric Control Charts -- Distribution-free Control Charts for Joint Monitoring Location and Scale -- Distribution-free Phase II Control Charts for Monitoring Continuous Process.
	Sommario/riassunto	This book explores nonparametric statistical process control. It provides an up-to-date overview of nonparametric Shewhart-type univariate control charts, and reviews the recent literature on nonparametric charts, particularly multivariate schemes. Further, it discusses observations tied to the monitored population quantile, focusing on the Shewhart Sign chart. The book also addresses the issue of practically assuming the normality and the independence when a process is statistically monitored, and examines in detail change-point

analysis-based distribution-free control charts designed for Phase I applications. Moreover, it introduces six distribution-free EWMA schemes for simultaneously monitoring the location and scale parameters of a univariate continuous process, and establishes two nonparametric Shewhart-type control charts based on order statistics with signaling runs-type rules. Lastly, the book proposes novel and effective method for early disease detection.