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Nota di contenuto	Introduction -- Anomaly Detection Using Correlation-Based Time-Series Analysis -- Changepoint-based Anomaly Detection -- Hierarchical Symbol-based Health-Status Analysis -- Self-Learning Health-Status Analysis -- Conclusion.
Sommario/riassunto	This book tackles important problems of anomaly detection and health status analysis in complex core router systems, integral to today's Internet Protocol (IP) networks. The techniques described provide the first comprehensive set of data-driven resiliency solutions for core router systems. The authors present an anomaly detector for core router systems using correlation-based time series analysis, which monitors a set of features of a complex core router system. They also describe the design of a changepoint-based anomaly detector such that anomaly detection can be adaptive to changes in the statistical features of data streams. The presentation also includes a symbol-based health status analyzer that first encodes, as a symbol sequence,

the long-term complex time series collected from a number of core routers, and then utilizes the symbol sequence for health analysis. Finally, the authors describe an iterative, self-learning procedure for assessing the health status. Enables Accurate Anomaly Detection Using Correlation-Based Time-Series Analysis; Presents the design of a changepoint-based anomaly detector; Includes Hierarchical Symbol-based Health-Status Analysis; Describes an iterative, self-learning procedure for assessing the health status.