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Sommario/riassunto	This book introduces some recent developments in Bayesian real-time system identification. It contains two different perspectives on data processing for system identification, namely centralized and distributed. A centralized Bayesian identification framework is presented to address challenging problems of real-time parameter estimation, which covers outlier detection, system, and noise parameters tracking. Besides, real-time Bayesian model class selection is introduced to tackle model misspecification problem. On the other

hand, a distributed Bayesian identification framework is presented to handle asynchronous data and multiple outlier corrupted data. This book provides sufficient background to follow Bayesian methods for solving real-time system identification problems in civil and other engineering disciplines. The illustrative examples allow the readers to quickly understand the algorithms and associated applications. This book is intended for graduate students and researchersin civil and mechanical engineering. Practitioners can also find useful reference guide for solving engineering problems.