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ISBN	3-031-22438-8
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Descrizione fisica	1 online resource (189 pages)
Disciplina	006.31
Soggetti	Machine learning - Statistical methods Signal processing - Statistical methods
Lingua di pubblicazione	Inglese
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Nota di contenuto	Tensor decomposition: Basics, algorithms, and recent advances -- Bayesian learning for sparsity-aware modeling -- Bayesian tensor CPD: Modeling and inference -- Bayesian tensor CPD: Performance and real-world applications -- When stochastic optimization meets VI: Scaling Bayesian CPD to massive data -- Bayesian tensor CPD with nonnegative factors -- Complex-valued CPD, orthogonality constraint and beyond Gaussian noises -- Handling missing value: A case study in direction-of-arrival estimation -- From CPD to other tensor decompositions.
Sommario/riassunto	This book presents recent advances of Bayesian inference in structured tensor decompositions. It explains how Bayesian modeling and inference lead to tuning-free tensor decomposition algorithms, which achieve state-of-the-art performances in many applications, including blind source separation; social network mining; image and video processing; array signal processing; and, wireless communications. The book begins with an introduction to the general topics of tensors and Bayesian theories. It then discusses probabilistic models of various structured tensor decompositions and their inference algorithms, with applications tailored for each tensor decomposition presented in the corresponding chapters. The book concludes by looking to the future, and areas where this research can be further developed. Bayesian

Tensor Decomposition for Signal Processing and Machine Learning is suitable for postgraduates and researchers with interests in tensor data analytics and Bayesian methods.
