1. Record Nr. UNINA9910672446803321

Autore	Cheng Lei
Titolo	Bayesian tensor decomposition for signal processing and machine learning : modeling, tuning-free algorithms and applications / / Lei Cheng, Zhongtao Chen, and Yik-Chung Wu
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2023] ©2023
ISBN	3-031-22438-8
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (189 pages)
Disciplina	006.31
Soggetti	Machine learning - Statistical methods Signal processing - Statistical methods
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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.

2. Record Nr. UNINA9910805580603321

Autore	Georgiev Svetlin
Titolo	An Excursion Through Partial Differential Equations / / by Svetlin G. Georgiev
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-48784-2
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (424 pages)
Collana	Problem Books in Mathematics, , 2197-8506
Disciplina	515.35
Soggetti	Differential equations Differential Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface -- General Introduction -- First Order Partial Differential Equations -- Classifications of Second Order Partial Differential Equations -- Classifications and Canonical Forms for Linear Second Order Partial Differential Equations -- The Laplace Equation -- The Heat Equation -- The Wave Equation -- Solutions, Hints and Answers to the Exercises -- Solutions, Hints and Answers to the Problems -- Index.
Sommario/riassunto	Presenting a rich collection of exercises on partial differential equations, this textbook equips readers with 96 examples, 222 exercises, and 289 problems complete with detailed solutions or hints. It explores a broad spectrum of partial differential equations, fundamental to mathematically oriented scientific fields, from physics and engineering to differential geometry and variational calculus. Organized thoughtfully into seven chapters, the journey begins with fundamental problems in the realm of PDEs. Readers progress through first and second-order equations, wave and heat equations, and finally, the Laplace equation. The text adopts a highly readable and mathematically solid format, ensuring concepts are introduced with

clarity and organization. Designed to cater to upper undergraduate and graduate students, this book offers a comprehensive understanding of partial differential equations. Researchers and practitioners seeking to strengthen their problem-solving skills willalso find this exercise collection both challenging and beneficial.