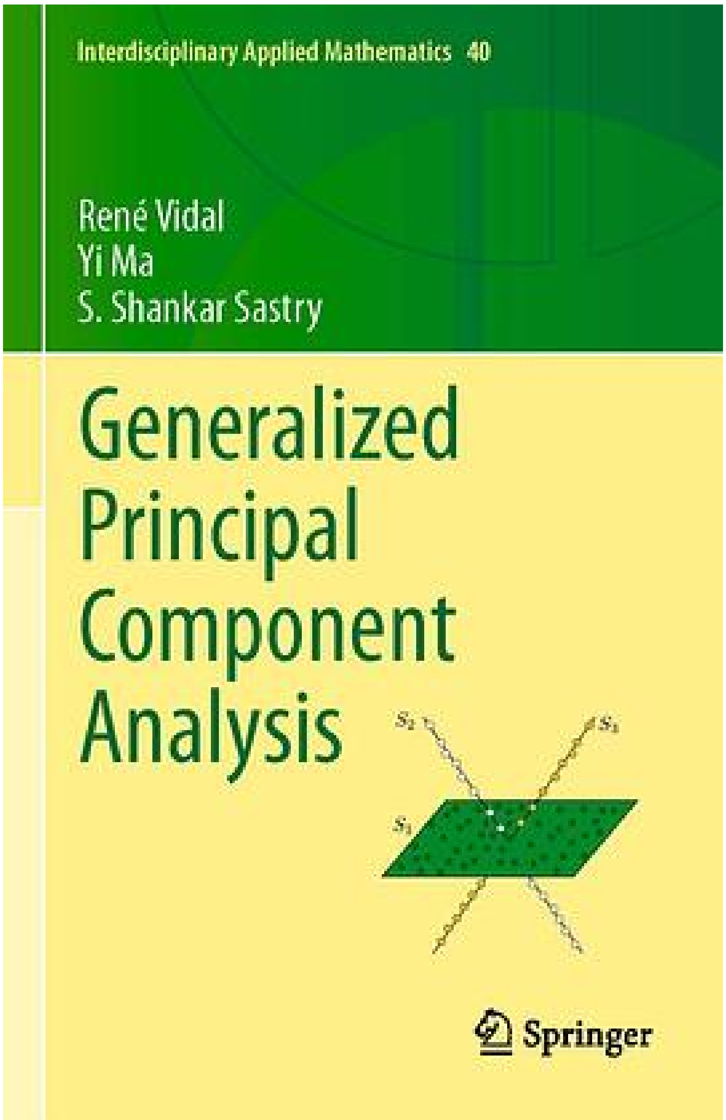
Generalized Principal Component Analysis



[Generalized Principal Component Analysis_下载链接1_]

著者:René Vidal

出版者:Springer

出版时间:2016-4-12

装帧:精装

isbn:9780387878102

This book provides a comprehensive introduction to the latest advances in the mathematical theory and computational tools for modeling high-dimensional data drawn from one or multiple low-dimensional subspaces (or manifolds) and potentially corrupted by noise, gross errors, or outliers. This challenging task requires the development of new algebraic, geometric, statistical, and computational methods for efficient and robust estimation and segmentation of one or multiple subspaces. The book also presents interesting real-world applications of these new methods in image processing, image and video segmentation, face recognition and clustering, and hybrid system identification etc.

This book is intended to serve as a textbook for graduate students and beginning researchers in data science, machine learning, computer vision, image and signal processing, and systems theory. It contains ample illustrations, examples, and exercises and is made largely self-contained with three Appendices which survey basic concepts and principles from statistics, optimization, and algebraic-geometry used in this book.

作者介绍:

René Vidal is a Professor of Biomedical Engineering and Director of the Vision Dynamics and Learning Lab at The Johns Hopkins University.

Yi Ma is Executive Dean and Professor at the School of Information Science and Technology at ShanghaiTech University.

S. Shankar Sastry is Dean of the College of Engineering, Professor of Electrical Engineering and Computer Science and Professor of Bioengineering at the University of California, Berkeley.

目录:

标签

计算机

机器学习

Optimization

数学科学

unsupervised

clustering

MachineLearning

评论

Generalized Principal Component Analysis_下载链接1_

书评

Generalized Principal Component Analysis_下载链接1_