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Nota di contenuto	Preface -- N. Durgin, R. Grotheer, C. Huang, S. Li, A. Ma, D. Needell, and J. Qin: Sparse Randomized Kaczmarz for Support Recovery of Jointly Sparse Corrupted Multiple Measurement Vectors -- P. Mani, M. Vazquez, J. R. Metcalf-Burton, C. Domeniconi, H. Fairbanks, G. Bal, E. Beer, and S. Tari: The Hubness Phenomenon in High Dimensional Spaces -- F. P. Medina, L. Ness, M. Weber, and K. Y. Djima: Heuristic Framework for Multiscale Testing of the Multi-Manifold Hypothesis -- K. Leonard, Y. Zhou, X. Wang, and G. Heo: High-dimensional Multiple Scaled Data Analysis of Obstructive Sleep Apnea Study with Interdisciplinary Endeavor -- E. Munch and A. Stefanou: The L(infinity)-Cophenetic Metric for Phylogenetic Trees as an Interleaving Distance -- L. Ness: Inference of a Dyadic Measure and its Simplicial Geometry from Binary Feature Data and Application to Data Quality -- A. Genctav, M. Genctav, and S. Tari: A Non-local Measure for Mesh Saliency via Feature Space Reduction -- F. Seeger, A. Little, Y. Chen, T. Woolf, H. Cheng, and J. C. Mitchell: Feature Design for Protein Interface Hotspots using KFC2 and Rosetta -- R. Aroutiounian, K. Leonard, R. Moreno, R. Teufel: Geometry-Based Classification for Automated Schizophrenia Diagnosis -- N. Durgin, R. Grotheer, C. Huang, S. Li, A. Ma, D. Needell, and J. Qin: Compressed Anomaly Detection with Multiple Mixed Observations -- A. Grim, B. Iskra, N. Ju, A. Kryshchenko, F. P. Medina, L. Ness, M. Ngamini,

M. Owen, R. Paffenroth, and S. Tang: Analysis of Simulated Crowd Flow Exit Data: Visualization, Panic Detection, and Exit Time Convergence, Attribution and Estimation -- V. Adanova and S. Tari: A Data Driven Modeling of Ornaments. .

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Sommario/riassunto

This edited volume on data science features a variety of research ranging from theoretical to applied and computational topics. Aiming to establish the important connection between mathematics and data science, this book addresses cutting edge problems in predictive modeling, multi-scale representation and feature selection, statistical and topological learning, and related areas. Contributions study topics such as the hubness phenomenon in high-dimensional spaces, the use of a heuristic framework for testing the multi-manifold hypothesis for high-dimensional data, the investigation of interdisciplinary approaches to multi-dimensional obstructive sleep apnea patient data, and the inference of a dyadic measure and its simplicial geometry from binary feature data. Based on the first Women in Data Science and Mathematics (WiSDM) Research Collaboration Workshop that took place in 2017 at the Institute for Computational and Experimental Research in Mathematics (ICERM) in Providence, Rhode Island, this volume features submissions from several of the working groups as well as contributions from the wider community. The volume is suitable for researchers in data science in industry and academia. .

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