

Women in Data Science mini-symposium (online)

SIAM Conference on Mathematics of Data Science

Organizers:

Carlotta Domeniconi, George Mason University

Andrea Bertozzi, UCLA

June 9, 2020: 2:30pm - 4:30pm

A bit of history...

- * The aim on this mini-symposium is to establish a venue for the growing community of women in data science.
- * This mini-symposium is a follow-up to the *Women in Data Science and Mathematics* (WiSDM) Workshop, ICERM, Brown University, July 2019 (first edition was in Summer 2017)
https://icerm.brown.edu/topical_workshops/tw19-5-wisdm/
- * Please consider volunteering as group leader for the next edition of WiSDM (Summer 2021)!

WiSDM 2017



Association for Women in Mathematics Series

Ellen Gasparovic · Carlotta Domeniconi *Editors*

Research in Data Science

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.

Mathematics

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Research in Data Science

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Springer

Schedule

- * 2:35 - 2:45 **Kaisa Taipale**, Data Scientist C. H. Robinson.
Statistical learning and data mining for pediatric obstructive sleep apnea
- * 2:45 - 3:00 Questions and Discussion
- * 3:00 - 3:10 **Sanghamitra Dutta**, CMU.
An Information-theoretic quantification of discrimination with exempt features
- * 3:10 - 3:25 Questions and Discussion
- * 3:25 - 3:35 **Jamie Haddock**, UCLA.
Combining non-negative data decompositions with neural networks for interpretable medical imaging classification
- * 3:35 - 3:50 Questions and Discussion
- * 3:50 - 4:00 **Elizabeth Newman**, Emory University.
Non-negative tensor patch dictionary approaches for image compression and deblurring applications
- * 4:00 - 4:15 Questions and Discussion
- * 4:15 Final remarks and adjournment