

Accepted workshop papers are to be published in the Special Issue on Causal Discovery of Springer International Journal of Data Science and Analytics subject to further review

As a basic and effective tool for explanation, prediction and decision making, causal relationships have been utilized in almost all disciplines. Traditionally, causal relationships are identified by making use of interventions or randomized controlled experiments. However, conducting such experiments is often expensive or even impossible due to cost or ethical concerns. Therefore there has been an increasing interest in discovering causal relationships based on observational data, and in the past few decades, significant contributions have been made to this field by computer scientists.

Inspired by such achievements, this workshop aims to provide a forum for researchers and practitioners in data mining and other disciplines to share their recent research in causal discovery in their respective fields and to explore the possibility of interdisciplinary collaborations in the study of causality. Based on the platform of KDD, this workshop is especially interested in attracting contributions that link data mining/machine learning research with causal discovery, and solutions to causal discovery in large scale data sets.

Topics of Interest

The workshop invites submissions on all topics of causal discovery, including but not limited to:

- Causal discovery and structural learning
- Experimental design and causal inference from high-dimensional data
- Fusion of datasets containing heterogeneous biases (e.g., confounding, selection)
- Generalizability and extrapolation of experimental knowledge across settings
- Causal analysis in real-world problems (e.g., bioinformatics, medicine, social sciences)
- Intersection of data mining and causal inference
- Assessment of discovery methods and new datasets

Important Dates

May 16, 2016 May 23, 2016: Paper submission deadline June 13, 2016: Notification of acceptance/rejection July 1, 2016: Camera-ready submission deadline for accepted papers August 14, 2016: Workshop date

Paper Submission and Publications

Papers submitted to this workshop must not be under review or accepted for publication elsewhere. All submitted papers will be reviewed and selected by the program committee on the basis of originality, technical quality, relevance to the workshop and presentation quality.

Papers must follow the <u>Instructions for Authors</u> of the Springer *International Journal of Data Science and Analytics* (JDSA). All papers must be submitted via <u>JDSA submission system</u>. Within the submission system, please choose Special issue on Causal Discovery for your submission.

Camera-ready version of all accepted workshop papers will be invited to undergo further review by JDSA, and papers accepted after the further review will be included in the Special Issue on Causal Discovery of JDSA to be published in October/November 2016.

Workshop Organizers

Jiuyong Li, University of South Australia Kun Zhang, Carnegie Melon University Elias Bareinboim, Purdue University Lin Liu, University of South Australia

Further Information

Please visit workshop website: http://nugget.unisa.edu.au/CD2016/