Call for papers

Special Issue on
Causal Discovery 2017

Causal relationships have been utilized in almost all disciplines as a basic and effective tool for explanation, prediction, and decision making. Traditionally, causal relationships are identified through active interventions such as randomized controlled experiments. However, conducting such experiments is often impractical or even impossible due to cost, time constraints 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 and researchers in various fields.

Inspired by such achievements and following the publication of the previous special issue on causal discovery (http://link.springer.com/journal/41060/3/2/page/1), this special issue continues to solicit contributions from researchers and practitioners in data mining and other disciplines to share their recent research in causal discovery in their respective fields. This special issue is especially interested in contributions that link data mining and machine learning research with causal discovery, and solutions to causal discovery in large scale data sets.

Topics of Interest

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

- Causal structure learning
- Local causal structure discovery
- Causal discovery in high-dimensional data
- Integration of experimental and observational data for causal discovery
- Real world applications of causal discovery (e.g., in bioinformatics)
- Applications of data mining approaches to causal discovery
- Assessment of causal discovery methods

Guest Editors

Lin Liu, University of South Australia
Jiuyong Li, University of South Australia
Kun Zhang, Carnegie Mellon University
Emre Kıcıman, Microsoft Research
Negar Kiyavash, University of Illinois at Urbana-Champaign
Important Dates

- Paper submission due: May 26, 2017
- First round review notification: June 16, 2017
- Second round submission due: July 31, 2017
- Second round acceptance notification: September 15, 2017
- Further rounds of submission may be required based on previous review outcomes
- Special issue to be published online: approx. January 2018

Author Information

The guest editors are also organizing a causal discovery workshop (http://nugget.unisa.edu.au/CD2017/) in conjunction with the 2017 ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2017). Authors of papers accepted in the first round of review are invited to present their papers in the KDD 2017 Causal Discovery Workshop. Authors are free to choose not to present their papers in the workshop, and this choice does not affect the final acceptance decision of this special issue. Authors should indicate if they wish to participate in the KDD 2017 Causal Discovery Workshop in the covering letter of the first round submission of their paper.

Submission Guidelines

Papers submitted to this special issue for possible publication must be original and must not be under consideration for publication in any other journal or conference.

Previously published or accepted conference/workshop papers (except for those accepted by the KDD 2017 Causal Discovery Workshop) must contain at least 30% new material to be considered for the special issue (for workshop 50% new content is required).

All papers are to be submitted by referring to http://www.springer.com/41060. During submission please select “S.I.: Causal Discovery 2017” under Manuscript Category.

All manuscripts must be prepared according to the journal publication guidelines which can also be found on the website (http://www.springer.com/41060). Papers will be reviewed following the journal standard review process.

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