Special Issue

Causality Theory: Computational Complexity, Algorithms and Applications

Message from the Guest Editors

Causal inference has recently become a rapidly growing field of interdisciplinary research that involves mathematical statistics, machine learning, and some sub-fields of artificial intelligence and computer science. The goal is to explore, from observed data and phenomena, the causal dependencies between different objects and actions, e.g., between medical treatment and recovery. The theory of causality being developed over the past decades provides an intuitive and sound model of causal relationships as partially directed graphs and allows for a mathematical description of real experiments with observational data. This approach is gaining increasing attention in epidemiology, sociology, and other empirical disciplines. The focus of this Special Issue is on the algorithmic and complexity aspects of causality: Despite the significant achievements made in causal theory, several key challenges of an algorithmic nature remain open.

Guest Editors

Prof. Dr. Maciej Liśkiewicz

Institut für Theoretische Informatik, Universität zu Lübeck, 23538 Lübeck, Germany

Prof. Dr. Ralf Möller

Institut für Informationssysteme, Universität zu Lübeck, 23538 Lübeck, Germany

Deadline for manuscript submissions

closed (30 June 2021)

Algorithms

an Open Access Journal by MDPI

Impact Factor 2.1
CiteScore 4.5

mdpi.com/si/70684

Algorithms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
algorithms@mdpi.com

mdpi.com/journal/algorithms

Algorithms

an Open Access Journal by MDPI

Impact Factor 2.1
CiteScore 4.5

mdpi.com/journal/algorithms

MDPI

About the Journal

Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

Editor-in-Chief

Prof. Dr. Frank Werner
Faculty of Mathematics, Otto-von-Guericke-University, P.O. Box 4120, D-39016 Magdeburg, Germany

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), Ei Compendex, and other databases.

Journal Rank:

JCR - Q2 (Computer Science, Theory and Methods) / CiteScore - Q1 (Numerical Analysis)