

Special Issue

Bayesian Networks: Parameter and Structure Learning with Their Real-World Applications for Decision Making

Message from the Guest Editor

Within this Special Issue, we will delve into an extensive array of subjects, including but not limited to additive and dynamic Bayesian Networks. The emphasis will be on the choice of the prior distribution for parameter learning, different score functions for model fitting, the related factorization of the joint probability and their application of real-world case studies for decision making. My objective is to unite a varied range of interdisciplinary perspectives, cultivating enriching discussions and collaborations among researchers from both academia and industry. I extend a warm invitation to researchers to share their latest findings and insights in this Special Issue, pushing the boundaries of our comprehension in this captivating domain. For readers, I trust that this Special Issue will prove to be an invaluable resource regarding the latest developments in Bayesian Networks and their applications. **Keywords**

- additive Bayesian networks
- dynamic Bayesian networks
- decision sciences
- choice of the prior distribution
- factorization of the joint probability
- score functions

Guest Editor

Dr. Marta Pittavino

Venice School of Management—Department of Management, Ca' Foscari University of Venice, 30121 Venice, Italy

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

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

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