



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

Guest Editor:

Dr. Marta Pittavino

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

Deadline for manuscript
submissions:

1 April 2025

Message from the Guest Editor

Dear Colleagues,

I am pleased to warmly welcome you to contribute to this Special Issue of *Mathematics*, centering on "Bayesian Networks: Parameter and Structure Learning with Their Real-World Applications for Decision Making". The primary aim of this Special Issue is to feature advanced research and innovative advancements in the dynamic field of Bayesian Networks. It underscores the increasing significance of parameter learning and model fitting as pivotal components and presents practical applications 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 am enthusiastic about your contributions and engagement in this intellectual journey!

Keywords

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





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

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.

Author Benefits

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

High Visibility: indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank: JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Contact Us

Mathematics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/mathematics
mathematics@mdpi.com
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)