Special Issue

Interpretable Machine Learning and Statistical Modeling in High-Dimensional Data

Message from the Guest Editor

In today's big data era, extracting valuable insights from high-dimensional data is a central pursuit for data scientists. Beyond traditional statistical models, machine learning algorithms represent a powerful, data-driven option for handling high-dimensional data. Many machine learning algorithms have been developed with an emphasis on improving prediction. However, in numerous application fields, notably in biomedicine, the interpretability of a model – such as its ability to lucidly delineate the connections between responses and predictors – is frequently a decisive element in its broad acceptance and utilization.   In this Special Issue, we invite researchers to contribute original research articles, comprehensive reviews, and insightful perspectives that explore innovative statistical models, machine learning algorithms, and methods of explainable artificial intelligence, all focusing on the challenges presented by high-dimensional data.

Guest Editor

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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.

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