Special Issue

Application of the Bayesian Method in Statistical Modeling, 2nd Edition

Message from the Guest Editor

Bayesian statistics is a theory in the field of statistics based on the Bayesian interpretation of probability, where probability expresses a degree of belief in an event. Bayesian statistical methods use Bayes' theorem to compute and update probabilities after obtaining new data. This approach differs from other interpretations of probability, such as the frequentist interpretation, which views probability as the limit of the relative frequency of an event after many trials. Bayesian methods required much computation to complete, and the most widely used methods during the century relied on the frequentist interpretation. However, with the advent of powerful computers and new algorithms, such as Markov chain Monte Carlo, Bayesian methods have seen increasing use within statistics in the 21st century. This Special Issue aims to raise awareness of the availability and applicability of Bayesian analyses. It includes a collection of theoretical and applied studies using Bayesian statistics and provides information on statistical software that allows the use of Bayesian estimation methods.

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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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