Special Issue

Statistical Techniques for Data Collection in the Era of Data Enrichment

Message from the Guest Editor

We invite contributions on novel approaches to gathering high-quality data and their critical role in improving the validity and efficiency of statistical and causal conclusions. The scope encompasses social surveys, experimental and quasi-experimental designs, subsampling techniques, and design-based causal inference methods. Of special interest are studies demonstrating how machine learning and AI can optimize data collection processes while maintaining statistical rigor. The Special Issue encourages submissions that address theoretical foundations, methodological innovations, and practical applications of modern data collection strategies. We welcome research showcasing how these techniques enhance statistical power, reduce uncertainty, and support robust AI-driven analytics in real-world settings. We also encourage novel case studies to show how to collect data in real-world scientific problems. This Special Issue will focus specifically on the following areas:

- Sampling theory;
- Design of experiments;
- Subsampling and subdata selection;
- Design-based causal inference;
- Statistical inference accounting for data collection;
- Case studies of special designs or survey problems.

Guest Editor

Dr. Jun Yu

Department of Statistics, School of Mathematics and Statistics, Beijing Institute of Technology, Beijing 100081, China

Deadline for manuscript submissions

31 May 2026

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/252262

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

mdpi.com/journal/mathematics

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/journal/mathematics

MDPI

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

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).