

Special Issue

Alternate Mathematical Approaches to Estimating Portfolio Efficiency: Incorporating a Multi-Asset Framework

Message from the Guest Editors

This Special Issue is devoted to exploring alternative approaches to measuring portfolio efficiency. While the distinction between an optimal and efficient portfolio is clear, it is not yet well understood how various tests perform under a multi-asset framework. The distributions of equities, bonds, corporate bonds, REITs, commodities, and currencies are often different, yet most tests assume the standard Gaussian distribution while evaluating portfolio efficiency and optimization. The issue will look at papers that discuss/utilize any or all of the following in their portfolio test designs:

- A multi-asset framework;
- Non-normal distributions underlying the data generating processes for asset prices: Non-normal return distributions, such as Poisson distribution, Merton's jump-diffusion model, and others;
- Statistical tests such as tests in mean-variance space that explore the trigonometric properties of the location of Markowitz-style efficient portfolios, tests utilizing GMM processes, or the likelihood ratio test and others;
- Efficiency tests could then be factored into additional tests related to portfolio performance (Sharpe, Treynor, Jensen tests, and others).

Guest Editors

Prof. Dr. Pankaj Agrawal

Dr. Doureige Jurdi

Prof. Dr. Ramesh Gupta

Deadline for manuscript submissions

15 November 2025



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/100397

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

[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)



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 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).