

Editorial

Editorial for the First Issue of *Applied Mathematics and Statistics (AMS)*

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1. Introduction

Welcome to the inaugural issue of *Applied Mathematics and Statistics (AMS)*. In an era where technological advancements and data-driven decision-making are at the forefront of societal progress, integrating applied mathematics and statistics has never been more critical. From optimizing complex networks and systems to advancing health informatics and artificial intelligence, the applications of these disciplines are vast and impactful. *AMS* is dedicated to publishing pioneering research that addresses these pressing issues, offering a platform for sharing innovative methodologies and solutions that drive progress across various fields.

Our journal aims to be a premier publication that showcases significant scientific contributions at the intersection of mathematics and applied sciences. By providing valuable insights and fostering innovation, *AMS* seeks to influence various domains, from engineering and technology to health and environmental sciences.

2. Scope of the Journal

AMS encompasses a broad spectrum of topics, including but not limited to:

- (1) Complex Networks and Complex Systems: Research on the structure, dynamical behavior, and performance of complex networks and systems across different disciplines.
- (2) Neural Dynamics and Optimization: Studies on neural dynamics, optimization algorithms inspired by neural systems, and their diverse applications.
- (3) Collaborative Control and Distributed Optimization: Investigations into collaborative control strategies, distributed optimization techniques, and game theory in multi-agent systems.
- (4) Theory and Applications of Fractional Dynamics: Theoretical and practical advancements in mathematical models, control strategies, and optimization techniques for fractional dynamic systems.
- (5) Quantum Computing and Information Theory: Exploration of the mathematical foundations and applications of quantum computing, including quantum algorithms, cryptography, and system analysis.
- (6) Probability and Statistics: Developments in probability theory, stochastic processes, and statistical learning, with practical applications.
- (7) Health Informatics and Biostatistics: Application of mathematical modeling and statistical methods in life and health sciences, including disease modeling and public health data analysis.
- (8) Data Science: Innovations in data mining, time series analysis, causal inference, and causal emergence.
- (9) Fundamental Theories and Applications of Artificial Intelligence: Research into the foundational theories and practical applications of AI across different domains.

3. For Authors, Reviewers, and Editors

AMS is built on the collaborative efforts of authors, reviewers, and editors. We invite researchers to submit their groundbreaking work, emphasizing on rigorous mathematical analysis with real-world implications. Our review process is designed to ensure the highest standards of scientific integrity and excellence, with transparent and constructive feedback aimed at enhancing the quality of submissions.



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We are committed to fostering diversity in thought and inclusivity in participation. Our editorial team comprises leading experts from various backgrounds, ensuring a thorough and fair evaluation of each manuscript. We believe that the collective dedication of our contributors will establish AMS as a leading journal in the field.

4. Outlook

As we launch *AMS*, we envision a journal that not only disseminates pioneering research but also fosters a robust community of collaboration and innovation. We aim to be at the vanguard of scientific research, driving forward the frontiers of applied mathematics and statistics.

We invite researchers, practitioners, and academics to join us in this endeavor. Your contributions will be instrumental in shaping the future of applied mathematics and statistics, leading to transformative discoveries with significant real-world impact.

We look forward to your engagement and support in making *AMS* a success.

Conflicts of Interest

The author declares no conflict of interest.