Special Issue

Recurrent Neural Networks for Time Series Forecasting

Message from the Guest Editors

This Special Issue invites researchers to present high-quality studies on RNN techniques for time series forecasting. Potential topics of interest include but are not limited to:

- Novel algorithms exploring advancements in LSTM and GRU for time series forecasting.
- Novel algorithms that combine RNN with advancements in machine learning such as bi-directional algorithms, attention mechanisms, transformers, and multiplicative LSTM for time series forecasting.
- Novel algorithms that explore ConvLSTM architectures for spatio-temporal forecasting.
- Novel algorithms allowing the use of evolutionary computation to optimize RNN weights and hyperparameters in forecasting.
- Novel algorithms for time series forecasting under uncertainty with the use of Gaussian processes or Bayesian techniques.
- Novel algorithms for time series forecasting with limited data.
- Parallel and distributed RNN algorithms to accelerate training on GPUs.
- Exploration of RNN autoencoders and/or transformers for time series anomaly detection.
- Engineering applications of RNN algorithms in all disciplines are welcomed, while applications in carbon-free energy are particularly encouraged.

Guest Editors

Dr. Majdi I. Radaideh

Dr. Xingang Zhao

Dr. Yifeng Che

Dr. Mohammad G. Abdo

Deadline for manuscript submissions

closed (1 January 2023)

Forecasting

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.1

mdpi.com/si/126862

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

mdpi.com/journal/forecasting

MDPI

Forecasting

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.1

mdpi.com/journal/forecasting

MDPI

About the Journal

Message from the Editor-in-Chief

The new open access journal *Forecasting* provides an interdisciplinary forum for all aspects related to the immensely broad field of time series analysis and forecasting. The range of applications in forecasting is enormous, from energy forecasting or economic analysis of stock indices prediction, climate forecasting, chemical or natural process forecasting, etc. It is the aim of the journal to publish relevant topical contributions for the scientific community of forecasting in a timely manner. We would like to invite you to contribute to the journal by sending us your high quality research papers and would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Sonia Leva
Department of Energy, Politecnico di Milano, 20156 Milan, Italy

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Multidisciplinary Sciences) / CiteScore - Q1 (Economics, Econometrics and Finance (miscellaneous))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.9 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).