Recent Advances and Future Prospects of Machine Learning in Predictive Modeling of Atmospheric Sciences

Guest Editors:

Dr. Sunil Kumar Jha

Dr. Xiaorui Zhang

Dr. Limao Zhang

Dr. Nilesh Patel

Deadline for manuscript submissions:
closed (30 September 2021)

Message from the Guest Editors

ML algorithms have been implemented successfully in predictive modeling applications of atmospheric sciences in past research. The present issue invites researchers to submit their novel and unpublished research related to the current advancement of ML in predictive modeling research and applications of atmospheric sciences. The present issue will cover a broad range of topics related to applications of ML approaches in the analysis of atmospheric data with the following subtopics:

- Climate change modeling using machine learning
- Machine learning in meteorology and hydrology applications
- Role of machine learning in renewable energy
- Analysis of data of atmospheric events
- Big data in atmospheric sciences and its analysis
- Transfer and deep learning in predictive modeling in atmospheric sciences
- Intelligent forecasting in atmospheric sciences
- Reinforcement and ensemble learning uses in atmospheric sciences
- Predictive modeling in atmospheric sciences using evolutionary approaches
- Hybrid ML approaches in efficient modeling of events of atmospheric sciences
- Other advanced ML approaches and tools in atmospheric data modeling and applications.

Special Issue

Editor-in-Chief

Prof. Dr. Ilias Kavouras
Environmental, Occupational, and Geospatial Health Sciences, CUNY School of Public Health, New York, NY 10027, USA

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.
Journal Rank: CiteScore - Q2 (*Environmental Science (miscellaneous)*)

Contact Us