

Special Issue

Urban Air Quality Analysis and Prediction Using Remote Sensing and Machine Learning

Message from the Guest Editors

Atmospheric aerosols have harmful effects on climate, human health, and even plant growth and industry. It is necessary to provide accurate and useful information on air quality to policymakers to establish efficient plans for better air quality. Various aerosol retrieval studies have been conducted using satellite and remote sensing data by applying various machine learning and deep learning algorithms. However, this discipline still requires more accurate air quality information in near-real time on the urban scale. In this context, it is necessary to develop more improved algorithms for aerosol retrieval and forecasting from multiple satellite or remote sensing data with both conventional and state-of-the-art machine learning and deep learning methods. The open-access journal *Atmosphere* is hosting a Special Issue to bring together the most recent findings related to air quality prediction and analysis in urban areas. This topic encompasses machine learning and deep learning-based prediction and forecasting, multi-sensor remote sensing data, multivariate data analysis, including spectral information and environmental data, etc., focusing in particular on urban areas.

Guest Editors

Dr. Miae Kim

School of Urban and Environmental Engineering, Ulsan National Institute of Science and Technology, Ulsan 44919, Korea

Prof. Dr. Jan Cermak

Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology (KIT), Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany

Deadline for manuscript submissions

closed (30 September 2022)



Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 5.4



mdpi.com/si/99790

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

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





Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 5.4



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



About the Journal

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!

Editor-in-Chief

Dr. Daniele Contini

Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

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))