

Special Issue

Applying Deep Learning Technology for Spatiotemporal Prediction of Air Pollution from Urban Mobile Sources

Message from the Guest Editors

Mobile-source emissions account for more than 80% of carbon monoxide and hydrocarbons, and more than 90% of nitrogen oxides and solid particles in urban air pollutants. Additionally, these mobile-source emissions have become the main source of urban air pollution, causing serious damage to the social-ecological environment. Therefore, it is necessary to carry out comprehensive supervision and analysis methods of urban mobile-source emissions, as the results obtained are of great significance for protecting public health and improving rational urban planning, as well as traffic conditions. Meanwhile, the temporal and spatial distribution of urban mobile-source emissions is affected by many complex factors. We propose this Special Issue, “Applying Deep Learning Technology for Spatiotemporal Prediction of Air Pollution from Urban Mobile Sources”, to collect state-of-the-art research articles in the field with the hope of sharing views, findings, strategies, and recommendations to achieve equitable access to clean air.

Guest Editors

Dr. Zhenyi Xu

Institute of Artificial Intelligence, Hefei Comprehensive National Science Center, Hefei, China

Dr. Changfa Tao

School of Automotive and Transportation Engineering, Hefei University of Technology, Hefei, China

Deadline for manuscript submissions

closed (9 June 2025)



Atmosphere

an Open Access Journal
by MDPI

Impact Factor 2.3
CiteScore 4.9



mdpi.com/si/155524

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 2.3
CiteScore 4.9



[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))