



Application of Deep Learning in Ambient Air Quality Assessment

Guest Editors:

Prof. Dr. Lianfa Li

Dr. Meredith Franklin

Prof. Dr. Jun Wu

Prof. Dr. Haidong Kan

Deadline for manuscript
submissions:

closed (24 February 2023)

Message from the Guest Editors

Dear Colleagues,

Recent year, deep learning has been widely applied in many fields. However, in atmospheric sciences, limited monitoring data, monitoring data measured by instruments with varied quality and time and spatial coverage, the complexity of atmospheric processes in the formation of air pollutants, and the heterogeneity of the spatiotemporal distributions of air pollutants make it difficult for deep learning to be directly used to assess air quality, as there tend to be issues of potential inefficiency in learning, overfitting, and bias.

This Special Issue aims to promote the publication of original research and reviews that focus on applications of deep learning methods in ambient air quality assessment. These include the extraction and processing of important and/or new covariates such as meteorology, the use of remote sensing observations and other spatiotemporal data, the comparison of different methods to illustrate the effectiveness of deep learning, novel deep learning methods, as well as the interpretation of the models and results to improve model accuracy, efficiency, transparency, and interpretability.

Guest Editors





an Open Access Journal by MDPI

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

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

Atmosphere Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/atmosphere
atmosphere@mdpi.com
[X@Atmosphere_MDPI](https://twitter.com/Atmosphere_MDPI)