



Air Quality Prediction Based on Machine Learning Algorithms

Guest Editors:

Prof. Dr. Yves Rybarczyk

Faculty of Data and Information
Sciences, Dalarna University, 791
88 Falun, Sweden

Prof. Dr. Rasa Zalakeviciute

Grupo de Investigación en
Biodiversidad, Medio Ambiente y
Salud, Universidad de Las
Américas, 170125 Quito, Ecuador

Deadline for manuscript
submissions:

closed (31 December 2019)

Message from the Guest Editors

Several machine learning (ML) approaches have been used in recent years to predict a set of air pollutants using different combinations of predictor parameters. However, with a growing number of studies, why a certain algorithm is chosen over another for a given task is puzzling. The objective of this Special Issue is to gather innovative research studies on ML models of air quality, in order to better understand their predictive power. We are especially interested in papers focusing on: (i) state-of-the-art algorithms (e.g., support vector machine, ensemble learning, artificial neural networks, extreme learning, deep learning, and hybrid models); (ii) models able to predict pollution peaks; (iii) the prediction of contaminants recently put in the spotlight (e.g., nanoparticles); and (iv) comparative studies between CTM-based and ML-based predictions. of interest include but are not limited to:

- Air pollution
- Particulate matter, CO_x, NO_x, SO₂, O₃
- Prediction and forecasting
- Statistical modeling
- Data mining and big data
- Support vector machine
- Extreme and deep learning
- Reinforcement learning
- Hybrid models
- Time series analysis





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

Contact Us

Applied Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/applsci
applsci@mdpi.com
X@Applsci