

Special Issue

Air Quality Prediction Based on Machine Learning Algorithms

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

Guest Editors

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About the Journal

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.

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