# Special Issue

# Aerosols and Particulate Matters in the Southern Hemisphere

### Message from the Guest Editors

Aerosols play an essential role in the Earth's climate system and have a significant influence on climate change. The Southern Hemisphere has several sources of aerosol emissions, which are of different types depending on their origins. In addition to the continuous increase in urban pollution near big cities and industrial basins, the Southern Hemisphere experiences aerosol and PM emissions on a seasonal basis, including carbonaceous aerosols generated by African, Amazonian, or Australian fires, or on an occasional basis, from major and minor volcanic eruptions. Regardless of their origin, aerosols and PM in the atmosphere are known to have an effect on human health, the environment, and climate change.
In this issue, we intend to highlight aerosol and PM measurement capabilities in the Southern Hemisphere by the use of different instruments (LiDAR, sunphotometers etc.), at different locations, and in different environments. This includes studies on aerosols and PM in the boundary layer, troposphere, UT-LS, and stratosphere. Papers based on ground and satellite observation methods and results are welcome, as well as modeling or combined modeling and observation studies.

### Guest Editors

Prof. Dr. Venkataraman Sivakumar

Prof. Dr. Hassan Benchérif

Dr. Eduardo Landulfo

### Deadline for manuscript submissions

closed (21 October 2022)


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

mdpi.com/journal/atmosphere

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# 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

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