Special Issue

Human and Natural Impacts on Weather and Climate: Air Quality, Land Use, Wind Energy, and Dynamics

Message from the Guest Editor

Natural impacts on weather and climate include volcanic eruptions, solar activity, cloud condensation nuclei (CCNs) from outer space, continuously changing astronomic factors (e.g., eccentricity, nutation), and the collision of notable-sized asteroids with the Earth. Human impacts on weather and climate are related to the human needs for shelter, food, water, energy, and clothes. This Special Issue seeks cutting-edge research on the following topics:

Quantification and reasons for the observed wind stilling and its spatial extent;

Quantification and reasons for the temperature increases downwind of massive wind farms;

Impacts of land-use changes for housing, fiber, food, and energy production on the water, energy, and trace gas cycles;

Potential asteroid impacts, like dimming and land-use changes due to the impact of craters, and the role of collision location and asteroid size.

The impact of the changing insolation due to the Sun's activity, astronomic conditions, and volcanic eruptions.

Guest Editor

Prof. Dr. Nicole Mölders

Department of Atmospheric Sciences, Geophysical Institute and College of Natural Sciences and Mathematics, University of Alaska Fairbanks, 903, Koyukuk Drive, Fairbanks, AK 99775-7320, USA

Deadline for manuscript submissions

31 January 2026

Atmosphere

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.9

mdpi.com/si/238655

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

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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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