Special Issue

Microphysics of Precipitation Particles: Raindrops, Hail, and Snow

Message from the Guest Editor

Precipitation, both solid and liquid, plays a central role in the Earth's water cycle. On the one hand, it is the primary source of life-giving freshwater, and on the other hand, hail storms, freezing rain, severe rainfall and the associated floods, and landslides are among the most hazardous weather phenomena, having harmful economic, societal, and natural impacts. Hence, precipitation prediction, adequate observation, and short-term forecast at regional and global scales under changing climatic conditions are crucially important scientific issues.

This Special Issue aims to advance our understanding on the microphysics of single precipitation particles (e.g., hail, graupel, snow, rain, and cloud droplets), as well as the interactions among these hydrometeors. We invite contributors to submit original articles on laboratory and field measurements, numerical simulations, and theoretical studies on precipitation microphysics and aerodynamics. Articles on atmospheric phenomena related to precipitation microphysics (e.g., rainbow and halos) are also welcome.

Guest Editor

Dr. Miklós Szakáll

Institut für Physik der Atmosphäre, Johannes Gutenberg-Universität Mainz, Becherweg, Germany

Deadline for manuscript submissions

closed (15 August 2020)



an Open Access Journal by MDPI

Impact Factor 2.3 CiteScore 4.9



mdpi.com/si/29829

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

mdpi.com/journal/atmosphere





an Open Access Journal by MDPI

Impact Factor 2.3 CiteScore 4.9



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

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))

