



an Open Access Journal by MDPI

Tropical Cyclones: Observations and Prediction

Guest Editors:

Dr. Shumin Chen

Prof. Dr. Weibiao Li

Dr. Vilun Chen

Dr. Aogi Zhang

Dr. Mingsen Zhou

Deadline for manuscript

closed (24 May 2024)

submissions:

Message from the Guest Editors

Tropical cyclones (TCs), which develop over warm tropical oceans, are among the most destructive natural phenomena. Therefore, the forecasting of TCs has been an area of active scientific research for decades. However, the prediction of TCs remains difficult in the fields of research and operational forecasting because the mechanism of TCs is not fully understood. One of the reasons is that highquality observation data have not been fully analyzed. In particular, in air–sea fluxes, severe convection around the eyewall plays an important role in TC intensification, which should be attributed to TC dynamics. Therefore, observational and numerical research on TC dynamics is crucial for TC forecasting.

Topics of interest for this Special Issue include:

New developments in observation and modelling; (2) new developments in theory and forecasting; (3) air-sea interactions and cloud microphysics in TCs; (4) variation in TC tracking; (5) tropical cyclogenesis; (6) life cycle of TCs; (7) substructure and asymmetry of the eyewall; (8) rainbands and eyewall preplacement.



Specialsue





an Open Access Journal by MDPI

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

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!

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)*)

Contact Us

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