Special Issue

Modeling and Data Assimilation for Tropical Cyclone Forecasts

Message from the Guest Editors

This Special Issue is specific to the state-of-the-art and advancements in both numerical modeling and the usage of observations to the improvement of tropical cyclone (TC) predictions. The list of subjects includes recent advances in observations, DA and modeling of TCs with detailed and advanced information on genesis, movement, structure, intensification including rapid intensification (RI) and rapid weakening (RW), and prediction of TC related impacts. Specifically, it deals primarily with but are not limited to: (1) satellite data observations and applications in TC analysis and forecasts; (2) advances in NWP for TC predictions; (3) advanced DA methods for TCs and vortex initialization techniques; (4) ocean, wave, surge, and inundation coupling, and (5) advanced research in physical parameterizations and dynamical processes for TCs. Consideration will be given to NWP studies that demonstrate forecast skill metrics, and their respective applicability to the existing operational TC forecasting systems. Attention will also be given to DA studies which demonstrate forecast impacts using existing and/or new observation types.

Guest Editors

Dr. Vijay Tallapragada
Environmental Modeling Center (EMC), National Centers for Environmental Prediction (NCEP), NOAA, College Park, MD 20740, USA

Dr. Henry Winterbottom
NOAA/NWS/NCEP Environmental Modeling Center

Dr. Zaizhong Ma
NOAA/NWS/NCEP Environmental Modeling Center

Deadline for manuscript submissions

closed (15 May 2020)

Atmosphere

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.9

mdpi.com/si/33677

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

mdpi.com/journal/atmosphere

Atmosphere

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.9

mdpi.com/journal/atmosphere

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))

MDPI