Special Issue

Hydroclimate Dynamics and Extreme Weather Events in Africa

Message from the Guest Editors

This Special Issue focuses on climate dynamics and extreme weather events in Africa, with the aim of exploring the current status, trends, and potential impacts in the region amidst the backdrop of climate change. Africa is a diverse continent, playing a critical role in the global climate system. However, it faces increasing challenges due to local and global greenhouse gas emissions. The research covered in this Special Issue includes various aspects of:

- Atmospheric moisture fluxes and soil water budget:
 Examining precipitation-evaporation balance, river discharge, and run-off patterns and trends;
- Atmospheric emissions and air chemistry over Africa:
 Analyzing biomass burning, deforestation, and urban-industrial emissions;
- Droughts and floods: Addressing the frequency, intensity, historical trends, future projections, and impacts that threaten water resources, agriculture, food security, and infrastructure;
- Climate variability and extreme weather: Studying the mechanisms that connect climate variability to extreme weather events such as intense rainfall, dust plumes, and heatwaves in Africa.

Guest Editors

Prof. Dr. Mark Jury

Department of Physics, UPRM, P.O. Box 9000, Mayagüez, PR 00681, USA

Prof. Dr. Joseph N. Mutemi

Department of Earth and Climate Science, University of Nairobi, Nairobi, Kenya

Deadline for manuscript submissions

closed (28 February 2025)



Climate

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 5.7



mdpi.com/si/181725

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

mdpi.com/journal/climate





Climate

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 5.7



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Dr. Timothy G. F. Kittel

Institute of Arctic and Alpine Research, University of Colorado Boulder, Boulder, CO 80309-0450, USA

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), GeoRef, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Meteorology and Atmospheric Sciences) / CiteScore - Q2 (Atmospheric Science)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 21.6 days after submission; acceptance to publication is undertaken in 3.9 days (median values for papers published in this journal in the first half of 2025).

