Special Issue

West African Monsoon Climate Dynamics and Impacts: Past, Present and Future

Message from the Guest Editor

Climate in West Africa is dominated by the dynamics of the summer West African monsoon (WAM), which is influenced by both local and remote forcings, playing a key role in determining climate impacts in the region and remotely. In West Africa, human activities and natural ecosystems are highly sensitive to pronounced climate variability, which may drive dramatic environmental changes in the region. During mid Holocene, monsoonal precipitation was more abundant and Sahara vegetated. During 20th century, the alternation of wet and dry periods resulted in a devastating drought in the 80s. Future climate simulations project a widespread intense warming, whereas there is no unanimity on future precipitation trends. This context makes West Africa a climate change hotspot, urgently requiring reliable regional climate predictions. This special issue aims at contributing to the progress in the knowledge of the past, present and future of the WAM dynamics, teleconnections and impacts.

Guest Editor

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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

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