



Hindawi

Advances in Meteorology

Special Issue on

Hydrometeorology and Hydroclimate

CALL FOR PAPERS

Meteorology is the main driving force of hydrology along time, from the instantaneous states and processes until the monthly, seasonal, yearly, and sometimes multiyear sequences. Meteorology impacts much of the hydrological flows and storages and water balance terms across wide spatial dimensions, with complex effects such as variability interdependence, scaling issues, upstream-downstream integration, and ground-surface water interactions. Hydrometeorological feedbacks and feed forwards can also be enhanced through the characteristics of the geographic interface, such as the land use, landscape structures, biology of the cover, and water storage abilities.

In statistical terms, meteorology can be characterized by climate, and statistical hydrology can be jointly analysed. Changes in climate, in terms of magnitude, statistical distribution, spatial distribution, timing, and range of variables can have direct impacts on hydrological processes and statistics, as well as on associated dynamics, such as erosion, pollution, snow and ice, ecohydrology, and water uses. These impacts are also often mixed with the ones of geographic changes. Deciphering and allocating causes and impacts are often complex in the frame of the Anthropocene and thus of the water security issue.

We call for papers dealing with recent advances in observing, quantifying, understanding, modeling, predicting, and copying with the hydrometeorological and hydroclimatic interface and its wide variability across space, time, frequency, variables, and world geography, as well as of changes in this interface.

Potential topics include, but are not limited to:

- ▶ Using historical information and paleorecords to elucidate past changes in climate and hydrology, including changes in climatic and hydrological extremes
- ▶ Deepening the processes understanding and physical foundation of models and adapting models to new data sources including remote sensing
- ▶ Exploring the dynamical behaviour of hydrological systems in their link and feedbacks with connected natural/socioeconomic systems
- ▶ Analysing changes in patterns of stable/instable dynamical states of hydrological systems, contribution of these changes to self-organization of the systems, and understanding nature of their adaptation to changing environment
- ▶ Advancing approaches for analysing potential predictability of the water cycle processes, quantifying predictability, separating predictable and unpredictable patterns, and dividing inherent and model-derived limits to predictability
- ▶ Setting up strategy for analyzing interconnection of predictability aspects of hydrological systems with the respective aspects of the connecting systems

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/amete/hyhy/>.

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