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Current Trends in Catchment Biogeochemical and Hydrological Modelling

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Message from the Guest Editor

Biogeochemical and hydrological models are widely used in catchment science to test hypotheses, to improve process understanding, and to project future conditions (e.g., under changes in climate or land cover) for water and landscape management. Model ‘success’ and development have been partially constrained by the quality and spatiotemporal coverage of the observational data they are meant to simulate. The current widespread implementation of in situ sensors to characterize water quality and quantity have dramatically increased the temporal resolution of our observations. This trend is enabling novel conceptual frameworks and rapid developments in our understanding of natural systems. However, how are catchment biogeochemical and hydrological models combining high frequency data with long-term time series to develop new conceptualizations of catchment function? What are the current trends in catchment biogeochemical and hydrological modelling?

In this Special Issue, we invite studies involving innovative aspects of biogeochemical and hydrological modeling at the catchment scale, from small headwaters to large water basins.



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Special issue



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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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