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Advances in Multivariate Analysis of Environmental Phenomena: Celebrating the 15th Anniversary of Copulas in Hydrology

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Deadline for manuscript submissions:

closed (30 September 2019)

Message from the Guest Editors

Dear Colleagues,

In 2003, a seminal paper introduced the notion of Copula in hydrology: The target was to provide a new statistical tool to conveniently deal with the modeling of multivariate environmental phenomena. Since then, thousands of works have used Copulas to approach awkward and tricky problems involving the (joint) random behavior of nonindependent variables, coming up with new models and techniques of an unprecedented reach and scope. Several are the areas of hydrological sciences that have taken advantage of the power of Copulas: Among others, the study of floods, droughts, rainfall, and sea storms can now benefit from an increased capacity of (statistically) explaining the complex interactions of a number of variables. In turn, the predictive ability of many models has greatly improved, and the assessment of environmental risk has made substantial progresses. In addition, new findings concerning the quantification of hydrologic uncertainty have been obtained, and the assessment of basin similarities and regionalization techniques has received a great impulse.









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Message from the Editor-in-Chief

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