# **Special Issue**

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

## Message from the Guest Editors

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 non-independent 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.

#### **Guest Editors**

Dr. Gianfausto Salvadori

Dipartimento di Matematica e Fisica, Università del Salento, Provinciale Lecce-Arnesano, P.O.Box 193, Lecce I-73100, Italy

Prof. Dr. Carlo De Michele

Department Civil and Environmental Engineering, Politecnico di Milano, 20133 Milano, Italy

## Deadline for manuscript submissions

closed (30 September 2019)



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

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## Message from the Editor-in-Chief

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#### Editor-in-Chief

#### Dr. Jean-Luc PROBST

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