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## Shallow Water Equations in Hydraulics: Modeling, Numerics and Applications

Guest Editors:

**Prof. Dr. Anargiros I. Delis**

School of Production Engineering  
& Management, Technical  
University of Crete, Chania, 73100  
Crete, Greece

**Prof. Dr. Ioannis K. Nikolos**

School of Production Engineering  
& Management, Technical  
University of Crete, Chania, Crete,  
73100, GREECE

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### Message from the Guest Editors

Dear Colleagues,

In hydraulic engineering free surface water flows are commonly described by means of the shallow water equations (also called the Saint-Venant equations) and closely related models. Despite their simplicity, this description is valid in many applications in hydraulics and as such has a long tradition of providing a scientific basis for engineering practice. To this end, shallow water equations arise in modelling water flows in rivers, canals, lakes, reservoirs, coastal and urban areas and many other situations in which the water depth is much smaller than the horizontal length scale of motion. As such, shallow water and closely related equations are widely used in oceanography and atmospheric sciences to model, among others, hazardous phenomena as hurricanes/typhoons and tsunamis[...]

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### **Dr. Jean-Luc PROBST**

Laboratory of Functional Ecology and Environment, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, France

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Water Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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