

Special Issue

Measurements and Instrumentation in Hydraulic Engineering

Message from the Guest Editors

Advances in hardware and software, as well as conceptual advances, have widened the range of tools and methods available to measure key flow variables in fluvial and other natural or built environments.

Nowadays, a range of lasers (3D LDV, stereo-PIV), acoustics (ADV, ADCP, ABS) and ultrasonics (UVP) are typically deployed towards obtaining flow field variables, driving our understanding of fundamental dynamical flow and transport processes. Optical flow methods are increasingly used by industrial flow communities along with LDA/LDV and ultrasound velocimetry. Acoustic techniques (such as UVP or ADCP) enable the investigation of velocity fields along with sediment transport in harsh conditions. Laser-based methods can be used to reconstruct detailed bed surface morphologies, while advances in photogrammetry and 3D scanning enable the reconstruction of detailed bathymetries of channels and free-surface profiles. This Special Issue invites contributions that deal with novel aspects of flow and sediment transport monitoring and instrumentation across environments and scales and is promoted by the IAHR committee on Experimental Methods and Instrumentation.

Guest Editors

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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.

Editor-in-Chief

Dr. Jean-Luc PROBST

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