

Special Issue

Vegetation-Influenced Water Flow and Sediment Transport

Message from the Guest Editors

Aquatic vegetation exists in natural rivers, streams, marshes, and coastal regions and influences the ecosystem by altering flow structure and modifying bed morphology. Compared to a bare channel, flow velocity is reduced in a vegetated region and promotes sediment retention. Conversely, turbulence intensity is enhanced and promotes sediment transport. The competing trends make sediment retention and loss challenging to estimate, and the unclear sediment transport tendency increases the difficulty of evaluating the evolution of vegetated landscapes. Therefore, it is important to understand how vegetation impacts flow development and sediment transport. This Special Issue will focus on vegetation-influenced flow and sediment transport but is not limited to it. For example, the influence of vegetation on combined current and wave, the impact of vegetation on overbank flows, and the simulation of vegetated landscapes are also welcome. We sincerely invite researchers to submit their experimental, numerical, theoretical, and field studies regarding vegetation-influenced flow and sediment transport.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2023)



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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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