

Special Issue

Fluid Dynamics and Hydrological Processes

Message from the Guest Editors

The goal of this Special Issue, “Fluid Dynamics and Hydrological Processes”, is to present innovative studies and multidisciplinary approaches that advance our understanding of fluid motion, sediment transport, bed evolution, and pollutant migration in both natural and engineered systems. This Special Issue welcomes contributions on, but not limited to, the following themes:

- Flow structure, turbulence, and velocity field characterization in open channels and coastal zones;
- Sediment transport, erosion, deposition, and bed deformation processes;
- Scour and local bed response around hydraulic and coastal structures such as bridges, pipelines, levees, and breakwaters;
- Water and soil contamination, pollutant transport mechanisms, and their coupling with hydrological processes;
- Advanced monitoring, remote sensing, and data-driven methods for flow, sediment, and environmental assessment.

We invite original research articles, reviews, and technical notes that provide new insights into hydrodynamics, morphodynamics, and hydro-environmental interactions, supporting the development of sustainable and resilient water and environmental management strategies.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherent set of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientifically based political decisions.

We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

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