



The Study and Monitoring of Geomorphic Processes in Geosciences and Engineering

Guest Editor:

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Deadline for manuscript
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Message from the Guest Editor

Dear Colleagues,

This Special Issue aims to present and discuss the most recent advances in the sensing and (physical as well as numerical) modeling of environmental flows, across scales and environments, focusing on those capable of performing geomorphic work. This Special Issue aims to cover but is not restricted to the following themes:

- Particle to reach scale transport processes (from incipient intermittent entrainment to continuous/high sediment transport regimes);
- Experimental and numerical modeling of geomorphic flows;
- Monitoring the impact of geomorphic flows on infrastructure;
- Particle–fluid momentum and energy exchanges;
- Stochastic approaches for the diffusion of granular material;
- Particle segregation and granular shorting processes;
- Assessing critical hydraulic infrastructure failures due to extreme hydrologic events (such as bridge pier scour and dam collapses);
- Optimizing the management of reservoir operation schemes while considering the response of fluvial systems;
- Shallow water equations for modeling hydrosediment processes.





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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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