



water

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Experimental, Numerical and Field Approaches to Scour Research

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Message from the Guest Editors

Scientific research in the area of scour around hydraulic structures were primarily empirical in nature and founded on laboratory experiments, because of the complexity of the flow–sediment–structure interactions. The pure laboratory empiricism of the earlier works has been complemented by both numerical and field approaches, especially since numerical software and field measurement devices have attained a significantly higher level of sophistication. The three-pronged-approach towards scour research has provided new insights into the topic, including not only the original bridge foundation scour but also propeller, submarine pipeline, monopile, jet, rock, river bank and levee scour, etc. The aim of the issue is to present innovative research based on any one or a combination of these approaches, that elucidate the physics of the topic and provide solutions to practitioners, thus offering a better framework to aid the decision-making processes of river, coastal and offshore engineers. Contributions relating to the study of the effect of turbulence on and dynamic behavior of the structures will be of great value for both academia and stakeholders.



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Message from the Editor-in-Chief

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