

Special Issue

Dam Safety. Overtopping and Geostруктурал Risks

Message from the Guest Editors

Dam safety has experienced a dramatic shift in recent years. The main threats may be classified as overtopping or geostруктурал risks. Overtopping is the main cause of dam failure today. The challenges are to deepen our knowledge of the conditions and processes of dam failure due to overtopping and to explore efficient solutions for reducing dams' actual vulnerability. Research efforts have allowed the development of several software codes for characterizing the failure of earth dams. Plenty of protection types against overtopping have been developed and tested in laboratory and prototype conditions. Now, it is the time to take advantage of such a disperse experience and know-how to efficiently protect our dams against overtopping. On the other hand, the detection of geostруктурал risks during the operation period of a dam has been boosted in recent years through the application of machine learning and artificial intelligence techniques to the analysis of the monitoring data. The objective of this Special Issue is to gather the promising advances in both areas: overtopping and geostруктурал risks.

Guest Editors

Prof. Dr. Miguel Á. Toledo

Departamento de Ingeniería Civil: Hidráulica, Energía y Medio Ambiente, Universidad Politécnica de Madrid, 28040 Madrid, Spain

Prof. Dr. Rafael Morán

Departamento de Ingeniería Civil: Hidráulica, Energía y Medio Ambiente, Universidad Politécnica de Madrid, 28040 Madrid, Spain

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Water
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

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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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