

Dam Safety. Overtopping and Geostructural Risks

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Deadline for manuscript
submissions:

closed (15 February 2022)

Message from the Guest Editors

Dam safety has experienced a dramatic shift in recent years. The main threats may be classified as overtopping or geostructural 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 geostructural 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 geostructural risks.





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Journal Rank: JCR - Q2 (*Water Resources*) / CiteScore - Q1 (*Water Science and Technology*)

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