Special Issue

Hydrodynamic Characterization of Aquifers

Message from the Guest Editors

Aquifer characterization is essential for many groundwater-related research and applications, such as groundwater resource management, groundwater remediation, and the utilization of shallow geothermal energy. Over recent decades, new techniques for both the numerical modeling and field investigation of hydrogeological parameters have progressed due to increased computational power and modern sensing technology. These techniques have enhanced the precision of aquifer characterization, providing more comprehensive hydrogeological property data and a better understanding of the hydrodynamic behaviors of groundwater systems. This Special Issue aims to present advanced methods and techniques applied to hydrodynamic aquifer characterization. Developments in analytical solutions, numerical modeling, laboratory experiments, field investigations, and machine learning-based applications are the main components of this Special Issue. Research on these subjects helps to improve the understanding of hydrodynamic aquifer characteristics and thus the accuracy of calculations of groundwater flow and transport-related behaviors.

Guest Editors

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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

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