Special Issue

Hydrogeology and Regional Groundwater Flow

Message from the Guest Editors

Hydrogeology and regional groundwater flow systems are critical to understanding water resource sustainability, contaminant transport, and ecosystem resilience. This Special Issue aims to advance interdisciplinary research on groundwater dynamics at regional scales, integrating field observations, numerical modeling, and innovative technologies. Topics of interest include, but are not limited to, the following:

- Groundwater flow modeling: novel approaches for simulating regional aquifer systems, including machine learning applications and hybrid models.
- Hydrogeochemical processes: interactions between groundwater and geological formations, contaminant fate, and remediation strategies.
- Climate change impacts: effects of warming trends and extreme weather on groundwater recharge and availability, particularly in sensitive regions like arid zones and high-altitude catchments.
- Emerging technologies: remote sensing, isotopic tracing, and big data analytics in hydrogeological studies.
- Groundwater thematic research: evaluation, prediction, prevention, or control of water problems at mining operations or their impact on the environment.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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