Special Issue

Advancing Groundwater Sustainability: Integrated Risk Assessment and Management Strategies

Message from the Guest Editors

Groundwater sustainability is a critical challenge in the face of climate variability, increasing demand and contamination threats. A multidisciplinary approach that integrates hydrogeological risk assessments, modeling, policy-driven management strategies, and advanced computational techniques is required to ensure long-term availability and quality of groundwater. This Special Issue will feature studies that apply numerical modeling of aquifer dynamics, GIS and remote sensing for groundwater risk assessment and mapping, machine learning in hydrology, and emerging technologies for contamination mitigation. It will also highlight research on climate-resilient water management, groundwater recharge strategies, and regulatory frameworks for sustainable governance. We invite contributions that offer novel methodologies, case studies, and cross-disciplinary insights with respect to the following topics:

- Groundwater vulnerability and risk assessment.
- Hydrogeochemical processes and water quality monitoring.
- GIS and remote sensing in hydrogeology.
- Computational hydrology and numerical modeling.
- Climate change impacts on groundwater resources.

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Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.
We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

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