

Special Issue Reprint

Application of Geophysical Methods for Hydrogeology

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Edited by

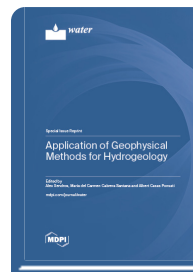
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The special focus of this reprint is on case studies demonstrating the potential to improve our understanding of hydrogeological parameters in vadose and non-vadose zones used to modelize groundwater flow, study the transport of substances, and, therefore, improve our aquifer knowledge and manage many important processes such as contamination and saltwater intrusion. The accepted papers included those on geophysical prospecting surveys as a part of the holistic strategy for aquifer conceptualization and modelling; integrated large- and detailed-scale near-surface geophysical prospecting techniques and time-lapse approaches to reducing the ambiguity of hydrogeological interpretations; experimental field and numerical operational designs; and case studies surveying saturated and unsaturated media for methodological and conceptual purposes. Other papers contributed to understanding state-of-the-art geophysical techniques through specific study cases covering hydrogeological environments such as polluted sites and urbanized areas in different countries; aquifer typologies in coastal and inland areas such as Paleogene and Neogene sedimentary rocks and Quaternary detrital sediments; and climate settings including humid, sub-humid, and semiarid to arid ones. The used techniques were electrical, such as ERT, VES, resistivity well logs, SP measurements, and induced polarization tomography; electromagnetic, such as GPR, TDEM, and GNSS-R; and seismic, such as SRT, MASW, and HVSr.

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