

Special Issue

Advanced Numerical Simulations in Geotechnical Engineering

Message from the Guest Editor

Soils are very complicated materials. They are formed by particles that have different properties, sizes, and shapes, which interact with each other mechanically and chemically. Moreover, the voids left by the particles can be filled with a combination of fluids and gases, which highly affect the overall mechanical soil behaviour. Different approaches to simulate the soil performance when subject to loads can be adopted, running from macro- to micro-structural analyses. All of these possible numerical models pose challenges that need to be addressed in order to balance stability, accuracy, and efficient simulations. This Special Issue is open to advanced numerical simulations in soil mechanics and geotechnical engineering. We aim at publishing contributions on novel numerical schemes, including new constitutive models, particulate soil mechanics, unsaturated media, and soil dynamics. Practical applications of these advanced approaches to real civil engineering problems are particularly welcome.

Guest Editor

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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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