## **Special Issue**

## Underground Energy Storage and Geothermal Applications for a Sustainable Space Heating and Cooling

## Message from the Guest Editors

Decarbonization could be achieved with the production and distribution of clean thermal energy to district heating and cooling (DHC) networks, with energy efficiency measures, and with the energy sharing within renewable energy communities (RECs), Geothermal energy can be a vital option, since it can be constantly produced without any interruption conditioned by weather conditions, as is the case with other renewables such as solar or wind energy, and it can be easily integrated to DHC networks and RECs. Another great option is represented by underground thermal energy storage (UTES) systems, which can be a key element in overcoming short-term energy peaks, further developing smart energy networks. UTES systems contribute to the overall efficiency, flexibility, and response time of a DHC system, and they can also be used to cover the peak demand load as well as to provide a backup supply.

In this Special Issue, original research articles and reviews are welcome.

### **Guest Editors**

Dr. Jessica Maria Chicco

Dr. Ignasi Herms

Dr. Guglielmina Mutani

## Deadline for manuscript submissions

20 May 2026



# Applied Sciences

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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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