

## Special Issue

# Advancing Complexity Research in Earth Sciences and Geography

### Message from the Guest Editor

Many complex phenomena in earth sciences and geography, including oceans, rivers, and lakes, coastal morphodynamics, volcanic and seismic activities, human movement trajectory, among many others, have played significant roles in the creation of complexity science, especially chaos theory and fractal geometry. With our increasing understanding of complex systems, it is time to systematically examine the many complex phenomena using state-of-the-art methods for modeling complex data. Undoubtedly, such efforts will invigorate research in earth sciences and geography and facilitate further development of complexity science. To help to achieve this goal, this Special Issue calls for papers that discuss these problems. The topics of interest include but are not limited to:

- Applications of complexity science and emergent phenomena in earth sciences and geography;
- Fractal and spatial-temporal long-range correlations;
- Spatiotemporal data analysis;
- Multiscale analysis;
- Anomaly detection and precursor recognition in data;
- Complexity and natural hazards;
- Synthesizing methods from complexity science with AI-based techniques;

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### Guest Editor

Prof. Dr. Jianbo Gao

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### Deadline for manuscript submissions

closed (31 October 2023)



## Applied Sciences

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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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