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GEOINFORMATICS AND DATA MINING IN GEOPHYSICS

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DESCRIPTION

Geoinformatics studies the flows of geospatial data whose consumers are geophysics and its geology-related branch, geodynamics. An unprecedentedly huge volume of geospatial data reaching thousands of yottabytes (1024 bytes) has been accumulated to date in the world. The Global Navigational Satellite Systems (GNSS) are among the main providers of geospatial data for geophysics and geodynamics. For a few decades, GNSS have been providing, with an extremely high sampling rate, the global, regional, and local geodynamic monitoring, as well as various engineering applications. Numerous stations of continuous GNSS observations are distributed all over the surface of the Earth. They ensure the monitoring of the state and behavior of the lithosphere, hydrosphere, and atmosphere. The Earth's magnetic field is one of the most important objects of study in geophysics. The globally distributed networks of observatories currently allow recording the characteristics of the Earth's magnetic field with a one-second time resolution. The application of systems analysis in geophysics and geodynamics is illustrated by the approaches to estimating and forecasting the stability of the structural-tectonic blocks of the Earth's crust for the geophysical safe burial of high-level radioactive wastes. The modern intensive accumulation of data on the wide range of observations in geophysics requires sufficient methods and techniques for their comprehensive analysis and data mining. The analysis of data on potentially hazardous natural events such as earthquakes, tsunami, avalanches, landslides, geomagnetic storms, volcanic eruptions, mudflows, subsidence, floods, forest fires, tornadoes, etc. is of special significance. Analysis, assessment, and prediction of natural hazards are vital problems in the geophysics.

This Special Issue will present an outlook of modern data science approaches of geoinformatics and data mining in application to geophysics. Applications of systems analysis, geographic systems, data mining, Big Data aspects, etc. are welcome to this Special Issue. Particular attention will also be paid to the preservation of historical geodata and GIS in Geophysics.

PUBLICATION SCHEDULE / HOW TO SUBMIT

- Full paper submission deadline: **31st March 2022**
- Initial decisions on revisions or rejection: **30th June 2022**
- Final manuscripts submissions: **31st August 2022**
- Expected publication date: **31st December 2022**

When entering your submission please choose the option type of an article: "**Geoinformatics and Data Mining**" Submissions for the special issue are now open. In case of any technical problems, please

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