

SPECIAL ISSUE ON MULTISOURCE SENSORS FOR GEOGRAPHIC SPATIOTEMPORAL ANALYSIS AND SOCIAL SENSING TECHNOLOGY

PREFACE



In recent years, the rapid development of information and communication and the Internet of Things technology, the widespread application of wireless sensors, handheld intelligent terminal devices, and people's dependence on the Internet and mobile communication networks have generated a large amount of spatiotemporal big data with individual labels and spatiotemporal semantic information, making it possible to track and observe the spatial movement of individuals over a long time and with high precision. Geospatial artificial intelligence (GeoAI) refers to the interdisciplinary research direction that combines geography, earth sciences, and artificial intelligence. It seeks to solve major scientific and engineering challenges in the huge human–environment interaction system through spatial intelligence in machines to improve the dynamic sensing, intelligent reasoning, and knowledge discovery of geographic phenomena and earth science processes. Therefore, with the rapid development of remote sensing sensors and information communication technology, exploring the application of intelligent sensors, remote sensing, artificial intelligence, social perception, spatiotemporal big data, and other

technologies in geographic information science can provide strong methods and technical support for geographical research.

This special issue focuses on the research and application of multi-sensor data, remote sensing technology, geographic information technology, and artificial intelligence technology in geographic spatiotemporal data analysis and social perception. Part 1 of this special issue contains 11 papers focused on the research of ecological environment monitoring and analysis based on multisource remote sensing data, extraction methods of various sensor monitoring data in cities based on artificial intelligence technology, and the technical methods and applications of intelligent surveying and mapping, providing theoretical and practical bases for intelligent extraction and application of remote sensing images, improvement of urban ecological environment quality, and urban green development. It can provide many useful practical methods for applying geographic information technology to new basic surveying, urban planning, and green development.

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