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## **Innovative GIS Models and Approaches for Large Environmental and Urban Applications in the Age of AI**

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Deadline for manuscript  
submissions:

**closed (20 March 2024)**

### **Message from the Guest Editors**

Despite its continuous and successful development, GIS should, on the one hand, integrate the novel possibilities offered by the extensive and promising development of sensor-based systems and AI resources and, on the other hand, respond to the novel and urgent needs required in the face of environmental challenges. AI resources have shown great potential to enhance GIS. AI algorithms can analyze large amounts of data, derive useful insights, and make predictions based on previous observations. With the gradual maturation of GIS core approaches, novel AI algorithms, and the emergence of big geographical datasets and sensor-based systems, new data representation forms such as knowledge graphs and interactive and visual systems have shown more intuitive and efficient advantages in the representation, exploration, mining, and analysis of complex geographical phenomena than conventional methods. Accordingly, this Special Issue invites innovative research works that integrate the new forms of data representation and modeling within theoretical, formal, and practical GIS solutions, as well as their application to urban and environmental applications in the AI era.



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## Message from the Editor-in-Chief

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