1.
Record Nr.	UNINA9910896532103321
Autore	Xiong Wei
Titolo	High Performance Geographic Information System : Architecture and Technologies / / by Wei Xiong, Ye Wu, Xue Ouyang, Qing-ren Jia, Hao Chen, Luo Chen
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9771-70-6
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (334 pages)
Altri autori (Persone)	WuYe OuyangXue JiaQing-ren ChenHao ChenLuo
Disciplina	910.285
Soggetti	Geographic information systems Computational intelligence Engineering - Data processing Geographical Information System Computational Intelligence Data Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- The Architecture of High Performance Geographic Information System -- Management of Big Spatial Data -- Multi-paradigm Geocomputing -- Online Mapping and Visualization High pearformance GIS -- High performance GIS Platform -- Application of High performance GIS -- Trends of High performance GIS.
Sommario/riassunto	The development of earth observation and computing technology has promoted the wide application of spatio-temporal big data and artificial intelligence. The enrichment of data and the improvement of computational performance make it possible to perform spatio-temporal analysis and computation on a larger scale. Therefore, it is necessary to study the optimization methods and application methods of high performance geocomputing, starting from GIS architecture, in

order to form a high performance GIS that can serve the society and economy and support various applications. This book focuses on the architecture, technology, platform and application of high-performance GIS, analyzes the key technologies of spatio-temporal big data organization and access, parallelized spatial analysis and processing, large-scale map rendering and parallel visualization under the high-performance computing architecture, explains how to build high-performance geographic information applications, and looks forward to the trend of the new generation of GIS.