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Nota di contenuto	Part 1: Hydrological Data Assimilation -- Chapter 1 - Introduction -- Chapter 2 - Data assimilation and remote sensing data -- Part 2: Model-Data -- Chapter 3 - Hydrologic model -- Chapter 4 - Remote sensing for assimilation -- Part 3 : Data Assimilation Filters -- Chapter 5 - Sequential Data Assimilation Techniques for Data Assimilation -- Part 4 : GRACE Data Assimilation -- Chapter 6 - Efcient Assimilation of GRACE TWS into Hydrological Models -- Part 5 : Water Budget Constraint -- Chapter 7 - Constrained Data Assimilation Filtering -- Chapter 8 - Unsupervised Constraint for Hydrologic Data Assimilation -- Part 6 : Data-driven Approach -- Chapter 9 - Non-parametric Hydrologic Data Assimilation -- Chapter 10 - Parametric and Non-parametric Data Assimilation Frameworks -- Part 7 Hydrologic

	Applications -- Chapter 11- Groundwater Depletion over Iran -- Chapter 12 - Water Storage Variations over Bangladesh -- Chapter 13 - Multi-mission Satellite Data Assimilation over South America. .
Sommario/riassunto	This book presents the fundamentals of data assimilation and reviews the application of satellite remote sensing in hydrological data assimilation. Although hydrological models are valuable tools to monitor and understand global and regional water cycles, they are subject to various sources of errors. Satellite remote sensing data provides a great opportunity to improve the performance of models through data assimilation.