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Titolo	Data assimilation for atmospheric, oceanic and hydrologic applications . Vol. II / / Seon Ki Park, Liang Xu, editors
Pubbl/distr/stampa	Heidelberg ; ; New York, : Springer, c2013
ISBN	3-642-35088-7
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (736 p.)
Collana	Data assimilation for atmospheric, oceanic and hydrologic applications ; ; v. 2
Altri autori (Persone)	ParkSeon Ki XuLiang
Disciplina	551.015118
Soggetti	Meteorology - Data processing Oceanography - Data processing Hydrology - Data processing Meteorology - Observations Oceanography - Observations Hydrology - Observations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Review on the Theory and Methodologies of Estimation for Dynamical Systems -- Nudging Methods: A Critical Overview -- Markov Chain Monte Carlo Methods: Theory and Applications -- Information Content in Data Assimilation -- A Question of Adequacy of Observations in Variational Data Assimilation -- Quantifying Observation Impact for a Limited Area Atmospheric Forecast Model -- Skewness of the Prior through Position Errors and Its Impact on Data Assimilation -- Background Error Correlation Modeling with Diffusion Operator -- The Adjoint Sensitivity Guidance to Diagnosis and Tuning of Error Covariance Parameters -- Treating Nonlinearities in Data-Space Variational Assimilation -- Linearized Physics for Data Assimilation at ECMWF -- Recent Applications in Representer-Based Variational Data Assimilation. .
Sommario/riassunto	This book contains the most recent progress in data assimilation in meteorology, oceanography and hydrology including land surface. It spans both theoretical and applicative aspects with various

methodologies such as variational, Kalman filter, ensemble, Monte Carlo and artificial intelligence methods. Besides data assimilation, other important topics are also covered including targeting observation, sensitivity analysis, and parameter estimation. The book will be useful to individual researchers as well as graduate students for a reference in the field of data assimilation.