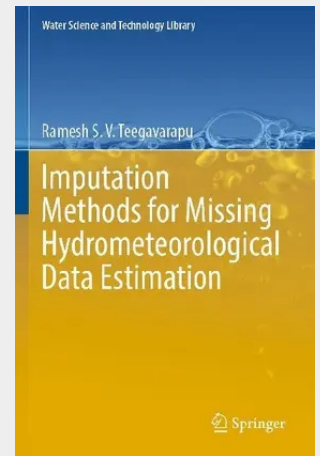


Imputation Methods for Missing Hydrometeorological Data Estimation

Missing data is a ubiquitous problem that plagues many hydrometeorological datasets. Objective and robust spatial and temporal imputation methods are needed to estimate missing data and create error-free, gap-free, and chronologically continuous data. This book is a comprehensive guide and reference for basic and advanced interpolation and data-driven methods for imputing missing hydrometeorological data. The book provides detailed insights into different imputation methods, such as spatial and temporal interpolation, universal function approximation, and data mining-assisted imputation methods. It also introduces innovative spatial deterministic and stochastic methods focusing on the objective selection of control points and optimal spatial interpolation. The book also extensively covers emerging machine learning techniques that can be used in spatial and temporal interpolation schemes and error and performance measures for assessing interpolation methods and validating imputed data. The book demonstrates practical applications of these methods to real-world hydrometeorological data. It will cater to the needs of a broad spectrum of audiences, from graduate students and researchers in climatology and hydrological and earth sciences to water engineering professionals from governmental agencies and private entities involved in the processing and use of hydrometeorological and climatological data.

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