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Titolo	Copulas and Its Application in Hydrology and Water Resources [[electronic resource] /] by Lu Chen, Shenglian Guo
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Soggetti	Hydraulic engineering Statistics Geoengineering, Foundations, Hydraulics Hydrology/Water Resources Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Copula function -- Copula-based seasonal design flood calculation -- Drought analysis using copulas -- Copula-based flood coincidence risk analysis -- Copula-based multi-site streamflow simulation -- Copula-based forecast uncertainty evolution model for flood risk analysis -- Copula entropy -- Determination of input for Artificial Neural Networks for flood forecasting using the copula entropy method -- Measures of correlations among rivers using copula entropy.
Sommario/riassunto	This book presents an overview of copula theory and its application in hydrology, and provides valuable insights, useful methods and practical applications for multivariate hydrological analysis using copulas. In addition, it extends the traditional bivariate model to trivariate or multivariate models. The specific applications covered include the study of flood frequency analysis, drought frequency analysis, dependence analysis, flood coincidence risk analysis and statistical simulation using copulas. The book offers a valuable guide for researchers, scientists and engineers working in hydrology and water resources, and will also benefit graduate or doctoral students with a basic grasp of copula

functions who want to learn about the latest research developments in the field.

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