1. Record Nr. UNINA9910299926603321 Autore Maity Rajib Titolo Statistical Methods in Hydrology and Hydroclimatology / / by Rajib Maity Singapore:,: Springer Singapore:,: Imprint: Springer,, 2018 Pubbl/distr/stampa **ISBN** 981-10-8779-2 [1st ed. 2018.] Edizione Descrizione fisica 1 online resource (XVII, 444 p. 52 illus., 20 illus. in color.) Collana Springer Transactions in Civil and Environmental Engineering, , 2363-7633 551.48072 Disciplina Soggetti Engineering geology Engineering—Geology **Foundations** Hydraulics Hydrology Climatology **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 -- Basic concepts of Probability and Statistics -- Basic Statistical Properties of Data -- Probability Distributions and Their Applications -- Frequency Analysis, Risk and Uncertainty in Hydroclimatic Analysis -- Hypothesis Testing -- Regression Analysis and Curve fitting -- Multivariate Analysis -- Time Series Analysis --Theory of Copula in Hydrology and Hydroclimatology. This book focuses on the application of statistical methods in the field Sommario/riassunto of hydrology and hydroclimatology. Among the latest theories being used in these fields, the book introduces the theory of copulas and its applications in this context. The purpose is to develop an understanding and illustrate the usefulness of the statistical techniques

with detailed theory and numerous worked out examples. Apart from

this, MATLAB-based codes and solutions of some worked out examples are also provided to assist the readers to handle real life data. This book presents a comprehensive knowledge of statistical techniques combining the basics of probability and the current advances in stochastic hydrology. Besides serving as a textbook for graduate courses on stochastic modeling in hydrology and related disciplines, the book offers valuable resources for researchers and professionals involved in the field of hydrology and climatology.