Record Nr. UNINA9910298364403321 Autore Gorokhovski Vikenti Titolo Effective Parameters of Hydrogeological Models / / by Vikenti Gorokhovski Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2014 **ISBN** 3-319-03569-X Edizione [2nd ed. 2014.] Descrizione fisica 1 online resource (193 p.) Collana Springer Hydrogeology, , 2364-6454 Disciplina 551.4 551.48015118 Soggetti Hydrogeology Hydrology Engineering design Geotechnical engineering Hydrology/Water Resources **Engineering Design** Geotechnical Engineering & Applied Earth Sciences 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. From the Contents: Introduction -- Engineering Approach --Nota di contenuto Geostatistical Approach -- Model Identification -- Transformation of Geological Objekts' Properties into Effective Model Parameters --Examples of Liner Transforming Mechanisms -- Examples of Non-Linear Transforming Mechanisms -- Evaluation of Transforming Mechanisms -- Inverse Problems and Transforming Mechanisms --Convection Solute Transport through Porous Media. Sommario/riassunto Geological models used in predictive hydrogeological modeling are not exact replicas of the objects they represent: many details related to structures and properties of the objects remain unknown. Those details may considerably affect simulation results. A provable evaluation of the uncertainty of hydrogeological and solute transport simulations are

almost impossible. In this book, the author describes how to obtain the best-possible results in simulations, based on the available data and predefined criteria that are turned into transforming mechanisms. The

latter are mathematical expressions for evaluating model parameters supporting effective simulations. Examples of the mechanisms as well as methods of their evaluation are provided in this book. It is also shown how these mechanisms can be used for the interpretation of hydrogeological data. The first edition of this book was published in the series SpringerBriefs in Earth Sciences.