1. Record Nr. UNINA9910476913703321 Autore Wang Chi-Yuen Titolo Water and Earthquakes / / by Chi-Yuen Wang, Michael Manga Pubbl/distr/stampa Springer Nature, 2021 Cham:,: Springer International Publishing:,: Imprint: Springer,, 2021 **ISBN** 3-030-64308-5 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XVI, 387 p. 191 illus., 135 illus. in color.) Collana Lecture Notes in Earth System Sciences, , 2193-8571 Disciplina 550 526.1 Soggetti Geophysics Hydrology Hydrogeology Natural disasters Geophysics/Geodesy Hydrology/Water Resources Natural Hazards Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Groundwater flow and transport -- Hydro-mechanical coupling -- Earthquakes influenced by water -- Response to tides, barometric pressure and seismic waves -- Groundwater Level --Stream Flow -- Groundwater Temperature -- Groundwater and Stream Composition -- Geysers -- Liquefaction -- Mud Volcanoes --Hydrologic precursors -- Epilogue. Sommario/riassunto This open access book explores the interactions between water and earthquakes, including recent concerns about induced seismicity. It further highlights that a better understanding of the response of the

water system to disturbances such as earthquakes is needed to safeguard water resources, to shield underground waste repositories, and to mitigate groundwater contamination. Although the effects of earthquakes on streams and groundwater have been reported for thousands of years, this field has only blossomed into an active area of

research in the last twenty years after quantitative and continuous documentation of field data became available. This volume gathers the important advances that have been made in the field over the past decade, which to date have been scattered in the form of research articles in various scientific journals.