1. Record Nr. UNINA9910392740303321 Autore Güven Aytaç Titolo Risk Assessment of Dams / / by Aytaç Güven, Alper Aydemir Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 3-030-47139-X **ISBN** Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (ix, 80 pages) Collana Springer Tracts in Civil Engineering, , 2366-259X Disciplina 363.3 Fire prevention Soggetti **Environmental management Physics** Fire Science, Hazard Control, Building Safety Water Policy/Water Governance/Water Management Numerical and Computational Physics, Simulation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1: Risk Assessment Of Dams -- Chapter 2: Risk, Hazard And Nota di contenuto Vulnerability -- Chapter 3: Risk Prioritization Of Dams -- Chapter 4: Rediction Of Dam Failure Parameters -- Chapter 5: Applications Of Breach Parameter Prediction Methods. This book offers a timely report on methods for risk assessment Sommario/riassunto procedures for dams, with a special emphasis on dams with small storage dimensions. It starts by introducing all important definitions relating to dams, dam safety, such as the most common failure modes, and risks. In turn, it describes in detail the most important evaluation procedures for various failure modes such as piping, flood, earthquake and stability are described in this chapter. Consequence assessment procedures, together with the different steps of the risk evaluation process, are analyzed, providing a guide on how to identify the appropriate failure mode for the examined dam and setting up the appropriate safety plan. The book introduces the most common

> methods for predicting peak breach discharge, analyzing some relevant case studies. Upon comparing the findings obtained with the different methods, the book concludes with some general suggestions and ideas

for future developments. This book fills an important gap between theoretical works and real-life problems being investigating in practical research studies on dam safety and risk management. It provides readers with the necessary knowledge on risk analysis and shows how to apply this in practice to carry out dam safety studies. It offers practical guidelines to set up risk assessment procedures for different failure modes and predicting failure parameters such as failure time, peak breach discharge and breach width.