1. Record Nr. UNINA9910484833903321 Autore Awange Joseph L. <1969-> Titolo Lake Victoria monitored from space / / Joseph Awange Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2021] ©2021 **ISBN** 3-030-60551-5 Edizione [1st ed. 2021.] 1 online resource (XVI, 320 p. 116 illus., 105 illus. in color.) Descrizione fisica Disciplina 551.4820971128 Soggetti Hydrogeology **Environmental management** Environmental monitoring Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto Part 1: Global and Lake Victoria's Water Resources -- Chapter 1. Global Freshwater Resources -- Chapter 2. Lake Victoria's Water Resources --Chapter 3. Challenges: Sustainaility & Obsolete Treaties -- Chapter 4. Lake Level: Dam Operations versus Droughts -- Part 2: Remote Sensing Techniques -- Chapter 5. Satellite Remote Sensing -- 6. GNSS Reectometry and Applications. This book employs a suite of remotely sensed products and advanced Sommario/riassunto technologies to provide the first comprehensive space-based sensing of Lake Victoria, the world's second largest freshwater lake that supports a livelihood of more than 42 million people, modulates regional climate, but faces myriads of challenges. Proper understanding of the lake and changes in its physical dynamics (e.g., water level,

technologies to provide the first comprehensive space-based sensing of Lake Victoria, the world's second largest freshwater lake that supports a livelihood of more than 42 million people, modulates regional climate, but faces myriads of challenges. Proper understanding of the lake and changes in its physical dynamics (e.g., water level, shorelines and areal dynamics) resulting from the impacts of climate variation and climate change as well as anthropogenic (e.g., hydropower and irrigation) is important for its management as well as for strategic development before, during and after climate extremes (e.g., floods and droughts) in order to inform policy formulations, planning and mitigation measures. Owing to its sheer size, and lack of research resources commitment by regional governments that hamper its observations, however, it is a daunting task to undertake studies on Lake Victoria relying solely on in-situ "boots on the ground"

measurements, which are sparse, missing in most cases, inconsistent or restricted by governmental red tapes. The book is useful to those in water resources management and policy formulations, hydrologists, environmentalists, engineers and researchers.