Record Nr. UNINA9910865245303321 Autore Kalinowska Monika B Titolo Advances in Hydraulic Research: 40th International School of Hydraulics / / edited by Monika B. Kalinowska, Magdalena M. Mrokowska, Pawe M. Rowiski Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2024 Pubbl/distr/stampa **ISBN** 3-031-56093-0 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (405 pages) Collana GeoPlanet: Earth and Planetary Sciences, , 2190-5207 Altri autori (Persone) MrokowskaMagdalena M RowiskiPawe M Disciplina 550 Soggetti Geophysics Water Hydrology Geotechnical engineering Geotechnical Engineering and Applied Earth Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Fish swimming performance: effect of flume length and different Nota di contenuto fatigue definitions -- Discharge capacity of an improved form of labyrinth weir -- Application of Animal Movement Models to Acoustic Telemetry Positioning -- A Lagrangian analysis of the surface flow in a jet dissipation basin at equilibrium -- Hydrodynamics of fish-shaped rigid bodies: velocity-drag coupling -- Methods for the assessment of fishways (upstream fish passage) -- Fish observations and hydraulic measurements on a nature-like unstructured block ramp -- Applying hidden Markov modelling to fine-scale telemetry -- Consider the bigger picture: The effect of multimodal sensory integration on fish passage behaviour -- Flood routing using models based on input and output flow or stage data. Sommario/riassunto This book provides an overview of advances in experimental, numerical modelling, and theoretical aspects of environmental hydraulics. By highlighting the latest findings on processes in natural aquatic

systems, solutions for civil engineering and water resources management, with a special focus on interdisciplinary cooperation

between Earth scientists, ecologists, biologists and hydraulic engineers that have helped to mitigate the impacts of anthropopressure on river habitats, it provides both researchers and practitioners with first-hand information about the latest trends in hydraulic research. The book combines peer-reviewed versions of invited lectures and regular presentations at the 40th International School of Hydraulics, held May 23–26, 2023, in Kty Rybackie, Poland. With contributions from world-leading experts and young researchers, many areas of environmental hydraulics are addressed here, including recent findings in numerical modelling and laboratory and field studies related to sediment and pollutant transport processes in rivers, fluvial morphodynamics, flow in vegetated channels, hydraulic structures in rivers and estuaries, and freshwater fish protection.