1. Record Nr. UNINA9910962220003321

Autore	Novak Pavel
Titolo	Hydraulic Modelling: An Introduction : Principles, Methods and Applications / / by Pavel Novak, Vincent Guinot, Alan Jeffrey and Dominic E. Reeve
Pubbl/distr/stampa	London ; ; New York, : Spon, 2010 Boca Raton, FL : , : CRC Press, , [2018] ©2010
ISBN	1-351-98847-6 1-351-98893-X 1-315-27249-0 1-282-57591-0 9786612575914 0-203-86162-0
Edizione	[First edition.]
Descrizione fisica	1 online resource (614 p.)
Disciplina	627.0285 627.04
Soggetti	Hydraulic engineering - Data processing Hydrodynamics - Mathematics Hydraulic structures - Mathematical models
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 and index.
Nota di contenuto	Book Cover; Title; Copyright; Contents; Preface; Acknowledgements; Main symbols; Chapter 1 Introduction; Chapter 2 Theoretical background - mathematics; Appendix; Chapter 3 Numerical techniques used in hydraulic modelling; Chapter 4 Theoretical background - hydraulics; Chapter 5 Development of physical models; Chapter 6 Tools and procedures; Chapter 7 Modelling of open-channel systems; Chapter 8 Environmental modelling of open-channel systems; Chapter 9 Modelling of closed-conduit flow; Chapter 10 Modelling of urban drainage systems; Chapter 11 Modelling of estuaries Chapter 12 Modelling of coastal and nearshore structures and processesChapter 13 Modelling of hydraulic structures; Author index;

	Subject index
Sommario/riassunto	Modelling forms a vital part of all engineering design, yet many hydraulic engineers are not fully aware of the assumptions they make. These assumptions can have important consequences when choosing the best model to inform design decisions. Considering the advantages and limitations of both physical and mathematical methods, this book will help you identify the most appropriate form of analysis for the hydraulic engineering application in question. All models require the knowledge of their background, good data and careful interpretation and so this book also provides guidance on the range of accuracy to be expected of the model simulations and how they should be related to the prototype. Applications to models include: open channel systems, closed conduit flows, storm drainage systems, estuaries, coastal and nearshore structures, hydraulic structures. This an invaluable guide for students and professionals.