1. Record Nr. UNINA9910830543303321

Autore	Hervouet Jean-Michel
Titolo	Hydrodynamics of free surface flows [[electronic resource]] : modelling with the finite element method / / Jean-Michel Hervouet
Pubbl/distr/stampa	Chichester ; ; Hoboken, N.J., : Wiley, c2007
ISBN	1-280-90083-0 9786610900831 0-470-31962-3 0-470-31963-1
Descrizione fisica	1 online resource (377 p.)
Disciplina	532.50151
Soggetti	Finite element method Hydrodynamics - Data processing Hydrodynamics - Mathematical models Hydrodynamics
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	Hydrodynamics of Free Surface Flows; Contents; List of figures; List of tables; List of plates; Acknowledgements; 1 Introduction; 1.1 Twenty years of development at EDF; 1.2 Some smoother pebbles...; 1.2.1 Saint-Venant equations; 1.2.2 Navier-Stokes equations; 1.2.3 Finite elements techniques and optimization; 2 Equations of free surface hydrodynamics; 2.1 Notations and concepts in geometry; 2.2 Free surface Navier-Stokes equations; 2.2.1 Non-hydrostatic Navier-Stokes equations; 2.2.2 Boundary conditions; 2.2.3 Hydrostatic pressure and the Boussinesq approximation 2.2.4 Source terms and body forces2.2.5 Navier-Stokes equations with sigma transform; 2.2.6 Tracer equations in 3 dimensions; 2.3 Saint-Venant equations; 2.3.1 Presentation and brief review; 2.3.2 Hypotheses, approximations and calculation rules; 2.3.3 Depth-averaging Navier-Stokes equations; 2.3.4 Different forms of equations; 2.3.5 The characteristics curves; 2.3.6 Notions on hydraulic jumps; 2.3.7 Saint-Venant equations in Mercator projection; 2.3.8 Saint-Venant equations with porosity; 2.3.9 Boussinesq equations; 2.3.10

Sommario/riassunto

A definitive guide for accurate state-of-the-art modelling of free surface flows Understanding the dynamics of free surface flows is the starting point of many environmental studies, impact studies, and waterworks design. Typical applications, once the flows are known, are water quality, dam impact and safety, pollutant control, and sediment transport. These studies used to be done in the past with scale models, but these are now being replaced by numerical simulation performed by software suites called "hydro-informatic systems". The Telemac system is the leading software package wor

2.	Record Nr.	UNICAMPANIAVAN00300418
	Titolo	Qualità ed ecoefficienza delle trasformazioni urbane : sperimentazione progettuale di unità insediative a conformità ecologica nell'ambito dello SDO di Roma / a cura di Alessandra Battisti e Fabrizio Tucci ; presentazione di Salvatore Dierna e Fabrizio Orlandi ; testi di Alessandra Battisti ... [et al.]
	Pubbl/distr/stampa	Firenze, : Alinea, 2002
	ISBN	978-88-8125-437-9
	Descrizione fisica	234 p. : ill. ; 27 cm
	Lingua di pubblicazione	Italiano
	Formato	Materiale a stampa
	Livello bibliografico	Monografia