1. Record Nr. UNISALENTO991004263338307536

Autore	Benedetto, Dario
Titolo	Matematica per le scienze della vita / Dario Benedetto, Mirko Degli Esposti, Carlotta Maffei
Pubbl/distr/stampa	Rozzano (MI) : CEA, 2015
ISBN	9788808184849
Edizione	[3. ed.]
Descrizione fisica	vii, 529 p. : ill. ; 27 cm
Altri autori (Persone)	Degli Esposti, Mirkoauthor Maffei, Carlotta
Disciplina	570.151535 510
Soggetti	Mathematics - Employment in biology Biology - Mathematica models
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	In cop.: Realtà aumentata, AR Frutto dell'esperienza didattica di docenti che insegnano nei corsi di Scienze biologiche e Biotecnologie, questo testo ha l'obiettivo di fornire gli strumenti matematici necessari per lo studio e la modellizzazione dei fenomeni del vivente. L'apprendimento dei concetti matematici si svolge attraverso esempi ispirati dalla realtà di fenomeni naturali, fisici e biologici. [...]

2. Record Nr. UNINA9910377822803321

Autore	Zhang Zh
Titolo	Hydraulic Transients and Computations / / by Zh. Zhang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-40233-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XII, 318 p.)
Disciplina	696.13
Soggetti	Fluid mechanics Machinery Fluids Hydrology Engineering Fluid Dynamics Machinery and Machine Elements Fluid- and Aerodynamics Hydrology/Water Resources
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Stationary Flows and Flow Regulations -- Transient Flows and Computational Methods -- Rigid Water Column Theory and Applications -- Surge Tank Functionality and System Stability -- Elastic Water Column Theory and Fundamentals -- Wave Tracking Method -- Method of Characteristics -- Method of Direct Computations and Transient Conformity -- Hydraulic Characteristics of Pumps and Turbines -- Application Examples of Complex Transient Computations.
Sommario/riassunto	This book describes the fundamental phenomena of, and computational methods for, hydraulic transients, such as the self-stabilization effect, restriction of the Joukowsky equation, real relations between the rigid and elastic water column theories, the role of wave propagation speed, mechanism of the attenuation of pressure fluctuations, etc. A new wave tracking method is described in great detail and, supported by the established conservation and traveling laws of shockwaves, offers a number of advantages. The book puts forward a novel method that allows transient flows to be directly

computed at each time node during a transient process, and explains the differences and relations between the rigid and elastic water column theories. To facilitate their use in hydropower applications, the characteristics of pumps and turbines are provided in suitable forms and examples. The book offers a valuable reference guide for engineers and scientists, helping them make transient computations for their own programming, while also contributing to the final standardization of methods for transient computations.