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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1. Basic formulations and algorithms -- 1.1 Basic hydrodynamics and thermodynamics -- 1.2 Mathematical modelling of turbulence in estuaries -- 1.3 Fundamental principles for numerical modelling -- 1.4 Application of finite-difference methods to estuary problems -- 1.5 Finite elements, a flexible tool for modelling estuarine processes -- 1.6. Mathematical modelling of fluid flow using the boundary element method -- 1.7 Spectral method for the numerical solution of the three-dimensional hydrodynamic equations for tides and surges -- 1.8 On the formation of salt wedges in estuaries -- 2. Tides and storm surges -- 2.1 On currents in the German Bight -- 2.2 Tide-induced residual flow -- 2.3 Simulation of tidal river dynamics -- 2.4 Analysis of tide and current meter data for model verification -- 2.5 Mathematical modelling of tidal flats: a few remarks -- 2.6 On storm surge phenomena -- 2.7 Meteorological problems associated with numerical storm surge prediction -- 3. Baroclinic motions and transport processes -- 3.1 A coastal ocean numerical model -- 3.2 Modelling and verification of circulation in an arctic barrier island lagoon system — an ecosystem process study -- 3.3 Salinity intrusion models -- 3.4 A point of view: Physical processes on the continental shelf and their implications for numerical circulation models -- 3.5 Observations of

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