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2.3.3 Interpretation of the observations2.3.4 Estimating future sea levels; 2.4 Summary; Key publications; Acknowledgements; References; 3 Environmental Control: Geology and Sediments; 3.1 Geology and sediments: setting boundary conditions for coasts; 3.1.1 Coastal diversity: a heritage of geology and sediments; 3.1.2 Spatial and temporal scales: from global tectonics to local geological controls; 3.2 Geology and coasts; 3.2.1 The pervasive role of plate tectonics; 3.2.2 The role of Quaternary ice sheets and isostatic rebound on high-latitude coasts; 3.2.3 Water loading of continental shelves
3.2.4 Lithology, sediment texture and coasts3.2.5 Other regional to local boundary conditions: coastal orientation and gradient; 3.3 Sediments and coasts; 3.3.1 Coastal sediment stacking over time: sequence stratigraphy and sea-level change; 3.3.2 Sediment accommodation space; 3.3.3 Terrigenous sediment supply; 3.3.4 Sediment redistribution from river-mouth to coast; 3.3.5 Carbonate sediments; 3.3.6 Sediment supply from soft cliffs; 3.3.7 Longshore sediment transport; 3.3.8 Sediment supply from the inner continental shelf; 3.3.9 Boulders on the shore: an enigmatic issue
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4.3.6 Global change effects on tides

Sommario/riassunto

The coastal zone is one of the most dynamic environments on our planet and is much affected by global change, especially sea-level rise. Coastal environments harbour valuable ecosystems, but they are also hugely important from a societal point of view. This book, which draws on the expertise of 21 leading international coastal scientists, represents an up-to-date account of coastal environments and past, present and future impacts of global change. The first chapter of the book outlines key principles that underpin coastal systems and their behaviour. This is followed by a discussion of key