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2.4. The movement quantity assessment equation2.4.1. Pressure force; 2.4.2. The force of the Earth's gravity; 2.4.3. The viscosity force; 2.5. The energy balance equation; 2.6. The equation of state; 2.7. Navier-Stokes equations for a fluid in rotation; Chapter 3. Models of the Atmosphere; 3.1. Introduction; 3.2. The various simplifications and corresponding models; 3.2.1. General form of the equations; 3.2.2. Water in the atmosphere; 3.2.3. Traditional approximation and non-hydrostatic equations; 3.2.4. Hydrostatic hypothesis and primitive equations
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3.5. The operational models

Sommario/riassunto

This series of five volumes proposes an integrated description of physical processes modeling used by scientific disciplines from meteorology to coastal morphodynamics. Volume 1 describes the physical processes and identifies the main measurement devices used to measure the main parameters that are indispensable to implement all these simulation tools. Volume 2 presents the different theories in an integrated approach: mathematical models as well as conceptual models, used by all disciplines to represent these processes. Volume 3 identifies the main numerical methods used in all these scientif