Record Nr. UNINA9910807093403321 Autore Marshall John <1954-> Titolo Atmosphere, ocean, and climate dynamics: an introductory text // John Marshall and R. Alan Plumb Amsterdam; ; [Burlington, MA], : Elsevier Academic Press, c2008 Pubbl/distr/stampa **ISBN** 1-282-54040-8 9786612540400 0-08-055670-1 Edizione [1st ed.] Descrizione fisica 1 online resource (345 p.) Collana International geophysics series;; v. 93 Altri autori (Persone) PlumbR. Alan <1948-> Disciplina 551.5/246 551.5246 Soggetti Atmospheric circulation Ocean-atmosphere interaction Ocean circulation Fluid dynamics Atmospheric thermodynamics 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 (p. 303-305) and index. Nota di contenuto Characteristics of the atmosphere -- The global energy balance -- The vertical structure of the atmosphere -- Convection -- The meridional structure of the atmosphere -- The equations of fluid motion --Balanced flow -- The general circulation of the atmosphere -- The ocean and its circulation -- The wind-driven circulation -- The thermohaline circulation of the ocean -- Climate and climate variability. Sommario/riassunto For advanced undergraduate and beginning graduate students in atmospheric, oceanic, and climate science. Atmosphere, Ocean and Climate Dynamics is an introductory textbook on the circulations of the atmosphere and ocean and their interaction, with an emphasis on global scales. It will give students a good grasp of what the atmosphere and oceans look like on the large-scale and why they look that way. The role of the oceans in climate and paleoclimate is also discussed. The combination of observations, theory and accompanying illustrative

laboratory experiments sets this text apart by m