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Sommario/riassunto	The study of exoplanetary atmospheres-that is, of planets orbiting stars beyond our solar system-may be our best hope for discovering life elsewhere in the universe. This dynamic, interdisciplinary field requires practitioners to apply knowledge from atmospheric and climate science, astronomy and astrophysics, chemistry, geology and geophysics, planetary science, and even biology. Exoplanetary

Atmospheres provides an essential introduction to the theoretical foundations of this cutting-edge new science.Exoplanetary Atmospheres covers the physics of radiation, fluid dynamics, atmospheric chemistry, and atmospheric escape. It draws on simple analytical models to aid learning, and features a wealth of problem sets, some of which are open-ended. This authoritative and accessible graduate textbook uses a coherent and self-consistent set of notation and definitions throughout, and also includes appendixes containing useful formulae in thermodynamics and vector calculus as well as selected Python scripts.Exoplanetary Atmospheres prepares PhD students for research careers in the field, and is ideal for self-study as well as for use in a course setting.The first graduate textbook on the theory of exoplanetary atmospheresUnifies knowledge from atmospheric and climate science, astronomy and astrophysics, chemistry, planetary science, and moreCovers radiative transfer, fluid dynamics, atmospheric chemistry, and atmospheric escapeProvides simple analytical models and a wealth of problem setsIncludes appendixes on thermodynamics, vector calculus, tabulated Gibbs free energies, and Python scriptsSolutions manual (available only to professors)