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Sommario/riassunto

This is volume 4 of Planets, Stars and Stellar Systems, a six-volume compendium of modern astronomical research, covering subjects of key interest to the main fields of contemporary astronomy. This volume on “Stellar Structure and Evolution” edited by Martin A. Barstow presents accessible review chapters on Stellar Structure, Stellar Atmospheres, The Sun as a Star, Asteroseismology, Star Formation, Young Stellar Objects and Protostellar Disks, Brown Dwarfs, Evolution of Solar and Intermediate- Mass Stars, The Evolution of High Mass Stars, Stellar Activity, White Dwarf Stars, Black Holes and Neutron Stars, Binaries and Multiple Stellar Systems, Supernovae and Gamma-Ray Bursts, and Stellar Winds. All chapters of the handbook were written by practicing professionals. They include sufficient background material and references to the current literature to allow readers to learn enough about a specialty within astronomy, astrophysics and cosmology to get started on their own practical research projects. In the spirit of the series Stars and Stellar Systems published by Chicago University Press in the 1960s and 1970s, each chapter of Planets, Stars and Stellar Systems can stand on its own as a fundamental review of its respective sub-discipline, and each volume can be used as a textbook or recommended reference work for advanced undergraduate or postgraduate courses. Advanced students and professional astronomers in their roles as both lecturers and researchers will welcome Planets, Stars and Stellar Systems as a comprehensive and pedagogical reference work on astronomy, astrophysics and cosmology.