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Sommario/riassunto

This is volume 2 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 “Astronomical Techniques, Software, and Data” edited by Howard E. Bond presents accessible review chapters on Astronomical Photometry, Astronomical Spectroscopy, Infrared Astronomy Fundamentals, Astronomical Polarimetry: Polarized Views of Stars and Planets, Sky Surveys,Techniques of Radio Astronomy,Radio and Optical Interferometry: Basic Observing Techniques and Data Analysis, Absolute Calibration of Spectrophotometric Standard Stars,Virtual Observatories, Data Mining, and Astroinformatics, Statistical Methods for Astronomy, Numerical Techniques in Astrophysics . 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.