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Descrizione fisica	1 online resource (585 p.)
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Nota di contenuto	PART I TOOLS OF THE ASTRONOMER -- Introduction -- A Review of Mathematical Concepts and Tools -- A Review of Graphing Techniques -- The Optics of Telescopes, I. Image Size and Brightness -- The Optics of Telescopes, II. Magnification and Chromatic Aberration -- PART II. THE SOLAR SYSTEM -- Introduction -- Earth, The Seasons and Local Latitude -- The Surface Roughness of the Moon, Reflection and Scattering from a Planetary Surface I. Surface Materials -- The Surface Roughness of the Moon, Reflection and Scattering from a Planetary Surface II. Beads and Surface Coverage -- The Formation of Impact Craters -- Determination of the Rotation Rate of Planets and Asteroids by Radar, I. Observations of Mercury -- Determination of the Rotation Rate of Planets and Asteroids by Radar, II. Observations of Simulated Planets -- The Orbit of Venus -- Kepler's Laws of Planetary Motion -- The Galilean Satellites of Jupiter -- Thermal Radiation from a Planetary Subsurface, I. Calibration and Initial Measurements -- Thermal Radiation from a Planetary Subsurface, II. Soil Sample Measurements -- The Microwave Phase

Effect of the Moon -- PART III. MEASURING THE STARS AND BEYOND
-- Introduction -- Blackbody Radiation -- The Surface Temperature
and Energy Output of the Sun -- The Theory of Atomic Spectra: The
Balmer Lines .- Discovering the Nature of Objects in Space: Kirchhoff's
Laws of Radiation -- Appendices -- Index.

Sommario/riassunto

This book presents experiments which will teach physics relevant to astronomy. The astronomer, as instructor, frequently faces this need when his college or university has no astronomy department and any astronomy course is taught in the physics department. The physicist, as instructor, will find this intellectually appealing when faced with teaching an introductory astronomy course. From these experiments, the student will acquire important analytical tools, learn physics appropriate to astronomy, and experience instrument calibration and the direct gathering and analysis of data. Experiments that can be performed in one laboratory session as well as semester-long observation projects are included. This textbook is aimed at undergraduate astronomy students.
