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| Edizione                | [2nd ed. 2014.]  |
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| Disciplina              | 520  |
| Soggetti                | Astronomy<br>Astrophysics<br>Planetology<br>Astronomy, Astrophysics and Cosmology<br>Astrophysics and Astroparticles<br>Solar system   |
| 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 and index.   |
| Nota di contenuto       | Perceptions of the Solar System in History -- Basic Tools and Techniques -- Celestial Mechanics -- The Core of the Solar System: The Sun -- General Properties of Terrestrial Planets -- Planetary Heat Flow and Temperatures -- Rocks and Minerals -- The Moon's Surface, Structure, and Evolution -- Surface Science of our Terrestrial Planets.   |
| Sommario/riassunto      | The second edition of Solar System Astrophysics: Background Science and the Inner Solar System provides new insights into the burgeoning field of planetary astronomy. As in the first edition, this volume begins with a rigorous treatment of coordinate frames, basic positional astronomy, and the celestial mechanics of two and restricted three body system problems. Perturbations are treated in the same way, with clear step-by-step derivations. Then the Earth's gravitational potential field and the Earth-Moon system are discussed, and the exposition turns to radiation properties with a chapter on the Sun. The exposition of the physical properties of the Moon and the terrestrial planets are greatly expanded, with much new information highlighted on the Moon, Mercury, Venus, and Mars. All of the material is presented within a framework of historical importance. This book and its sister volume, |

Solar System Astrophysics: Planetary Atmospheres and the Outer Solar System, are pedagogically well written, providing clearly illustrated explanations, for example, of such topics as the numerical integration of the Adams-Williamson equation, the equations of state in planetary interiors and atmospheres, Maxwell's equations as applied to planetary ionospheres and magnetospheres, and the physics and chemistry of the Habitable Zone in planetary systems. Together, the volumes form a comprehensive text for any university course that aims to deal with all aspects of solar and extra-solar planetary systems. They will appeal separately to the intellectually curious who would like to know just how far our knowledge of the solar system has progressed in recent years.

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