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| Titolo                  | The Sun's Surface and Subsurface : Investigating Shape and Irradiance /<br>/ edited by Jean-Pierre Rozelot   |
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| Disciplina              | 523.71   |
| Soggetti                | Planetology<br>Astrophysics<br>Space sciences<br>Geophysics<br>Observations, Astronomical<br>Astronomy—Observations<br>Astrophysics and Astroparticles<br>Space Sciences (including Extraterrestrial Physics, Space Exploration<br>and Astronautics)<br>Geophysics/Geodesy<br>Astronomy, Observations and Techniques<br>Sun Surface<br>Sun Diameters   |
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| Nota di bibliografia    | Includes bibliographical references at the end of each chapters.   |
| Nota di contenuto       | A Guide to the Book -- A Guide to the Book -- The Figure of the Sun,<br>Astrophysical Consequences. A Tutorial -- The Figure of the Sun,<br>Astrophysical Consequences. A Tutorial -- Solar Oscillations --<br>Helioseismology: A Fantastic Tool to Probe the Interior of the Sun --<br>Detection of Solar Eigenmodes -- Variations in the Solar Irradiance --<br>Solar Ultraviolet Irradiance: Origins, Measurements, and Models --<br>Total Solar and Spectral Irradiance Variations from Near-UV to Infrared<br>-- Measurement of the Solar Diameter -- Atmospheric Turbulence and<br>Solar Diameter Measurement -- Solar Astrometry with the Astrolabe of<br>Santiago -- Measurements of the Sun's Radius at Calern Observatory. |

## Sommario/riassunto

Composed of a set of lectures and tutorial reviews, this book stems from a summer school devoted to the gravitational aspects of the sun and their geophysical consequences. Contributions elaborate on the gravitational distortions of the sun which can be used to gain some knowledge of the sun's interior and surface phenomena but which also influences the sun's irradiance and thus ultimately the earth's climate. Last but not least, it is shown that these small distortions constitute a formidable challenge to solar astrometry, and the final part of the book describes the observational difficulties in defining unequivocally the solar diameter.

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