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Titolo	The Sun's Surface and Subsurface : Investigating Shape and Irradiance / / edited by Jean-Pierre Rozelot
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Descrizione fisica	1 online resource (XX, 218 p. 14 illus.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 599
Disciplina	523.71
Soggetti	Planetary science Astrophysics Space sciences Geophysics Astronomy Astronomy—Observations Planetology Astrophysics and Astroparticles Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Geophysics/Geodesy Astronomy, Observations and Techniques Sun Surface 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, Astrophysical Consequences. A Tutorial -- The Figure of the Sun, Astrophysical Consequences. A Tutorial -- Solar Oscillations -- Helioseismology: A Fantastic Tool to Probe the Interior of the Sun -- Detection of Solar Eigenmodes -- Variations in the Solar Irradiance -- Solar Ultraviolet Irradiance: Origins, Measurements, and Models -- Total Solar and Spectral Irradiance Variations from Near-UV to Infrared -- Measurement of the Solar Diameter -- Atmospheric Turbulence and

	Solar Diameter Measurement -- Solar Astrometry with the Astrolabe of 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 irradience 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.