

1. Record Nr.	UNINA9910349509703321
Titolo	Astronomical Polarisation from the Infrared to Gamma Rays // edited by Roberto Mignani, Andrew Shearer, Agnieszka Sowikowska, Silvia Zane
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-19715-8
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XXI, 393 p. 126 illus., 76 illus. in color.)
Collana	Astrophysics and Space Science Library, , 0067-0057 ; ; 460
Disciplina	520 535
Soggetti	Observations, Astronomical Astrophysics Astronomy, Observations and Techniques Astrophysics and Astroparticles Solar and Heliospheric Physics Solar system
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	When Polarimetry Made History -- Introduction to Polarisation & Polarimetry -- Optical polarimetry: methods, instruments and calibration techniques -- X-ray Polarimetry (instrument/techniques/calibration) -- Gamma-ray polarimetry -- Polarimetric observations of the Sun -- Spectropolarimetry of stars across the H-R diagram -- Dust polarisation in the Interstellar Medium -- Optical polarimetry of small Solar System bodies: from asteroids to debris disks -- Polarimetry of binary systems: polars, magnetic CVs, XRBs -- Multi-Wavelength Polarimetry of Isolated Pulsars -- Polarimetry of Magnetars and Isolated Neutron Stars -- Magnetic Fields in Gamma-Ray Bursts and their Polarised Emission -- The panchromatic polarisation signatures of Active Galactic Nuclei.
Sommario/riassunto	This book serves as both a primer to astronomical polarimetry and an authoritative overview of its application to various types of astronomical objects from AGN, compact stars, binary systems, stars

across the HR diagram, transients, the interstellar medium and solar system bodies. It starts with an historical perspective, a discussion of polarimetric theory, instrumentation and techniques in wave bands from the near infrared to gamma rays. The book presents the state of the art in astronomical polarimetry. It is motivated by the new X-ray polarimeters due to be launched in the next four years and improved optical polarimeters on large telescopes requiring a new analysis of polarimetric theory, methodology and results. This book will be suitable as advanced undergraduate companion text, a primer for graduate students and all researchers with an interest in astronomical polarimetry.
