1. Record Nr. UNISA996466683803316

Titolo	The Rotation of Sun and Stars [[electronic resource] /] / edited by Jean-Pierre Rozelot
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	3-540-87831-9
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (X, 264 p. 118 illus., 28 illus. in color.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 765
Disciplina	523.73
Soggetti	Observations, Astronomical Astronomy—Observations Geophysics Astrophysics Space sciences Astronomy, Observations and Techniques Geophysics/Geodesy Astrophysics and Astroparticles Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Sun Rotation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Sun: A Slowly Rotating Star -- What Is Coming: Issues Raised from Observation of the Shape of the Sun -- Effects of Rotation on Stellar p-Mode Frequencies -- Approaching the Low-Frequency Spectrum of Rotating Stars -- The Rotation of the Solar Core -- Physics of Rotation in Stellar Models -- Long Baseline Interferometry of Rotating Stars Across the HR Diagram: Flattening, Gravity Darkening, Differential Rotation -- Is the Critical Rotation of Be Stars Really Critical for the Be Phenomenon? -- On the Rotation of A-Type Stars -- The Solar Magnetic Field: Surface and Upper Layers, Network and Internetwork Field.
Sommario/riassunto	The Sun and stars rotate in different ways and at different rates of velocity, and knowledge of how they rotate is important in

	understanding the formation and evolution of stars and their structure. The wide variety of stars offers an equally wide variety of rotation rates and rotational evolution. From the slowly rotating stars to stars rotating close to their breakup velocities, different techniques and models have to be developed to study rotation and its effects on physical aspects of stars. In fact, one currently witnesses a complete renewal of astrophysical ideas about stellar rotation, mainly due to the development of new models including high-order effects of rotation and magnetism. This book, while not attempting to answer all questions about rotation, given that many issues still have to be further investigated, focuses on the basics and some particular aspects while aiming to show why it is important, from a physical point of view, to study stellar rotation. Based on courses given at a graduate school, these tutorial lectures will be of interest and useful to a rather broad audience of scientists and students.

2. Record Nr. UNINA9910404089203321

Autore	Wang Zhi
Titolo	Additive Manufacturing: Alloy Design and Process Innovations
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2020
ISBN	3-03928-353-7
Descrizione fisica	1 online resource (372 p.)
Soggetti	History of engineering and technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Additive manufacturing (AM) is one of the manufacturing processes that warrants the attention of industrialists, researchers and scientists, because of its ability to produce materials with a complex shape without theoretical restrictions and with added functionalities. There are several advantages to employing additive manufacturing as the primary additive manufacturing process. However, there exist several challenges that need to be addressed systematically. A couple such

issues are alloy design and process development. Traditionally alloys designed for conventional cast/powder metallurgical processes were fabricated using advanced AM processes. This is the wrong approach considering that the alloys should be coined based on the process characteristics and meta-stable nature of the process. Hence, we must focus on alloy design and development for AM that suits the AM processes. The AM processes, however, improve almost every day, either in terms of processing capabilities or processing conditions. Hence, the processing part warrants a section that is devoted to these advancements and innovations. Accordingly, the present Special Issue (book) focuses on two aspects of alloy development and process innovations. Here, 45 articles are presented covering different AM processes including selective laser melting, electron beam melting, laser cladding, direct metal laser sintering, ultrasonic consolidation, wire arc additive manufacturing, and hybrid manufacturing. I believe that this Special Issue bears is vital to the field of AM and will be a valuable addition.