1. Record Nr. UNINA9910427667303321

Autore	Hanslmeier Arnold
Titolo	The chaotic solar cycle / / Arnold Hanslmeier
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2020] Â©2020
ISBN	981-15-9821-5
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVII, 216 p. 108 illus., 89 illus. in color.)
Collana	Atmosphere, earth, ocean & space
Disciplina	523.7
Soggetti	Solar cycle
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	The Sun as a star -- Solar activity -- Chaos -- Chaotic solar cycle -- Solar cycle and Earth’s climate -- Prediction solar activity.
Sommario/riassunto	This book offers an overview of solar physics with a focus on solar activity, particularly the activity cycle. It is known that solar activity varies periodically, but there are also phases of intermittency, such as the Maunder minimum, during which solar activity is very low or high over several decades. The book provides a brief introduction to chaos theory and investigates solar activity in terms of its chaotic behavior. It also discusses how intermittent phases of solar activity have affected and can affect Earth’s climate and long-term space weather, and reviews the underlying theories relating to the solar dynamo mechanism. Furthermore, each chapter includes references to scientific literature (review articles and papers) so that readers can delve deeper into the subjects covered. This richly illustrated book will appeal to a wide readership, and is also useful as a textbook for courses in solar physics and astrophysics.