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DICIEMBRE 2017

***LIBRO* Extreme Events in Geospace (1st Edition) (Origins, Predictability, and Consequences)**

RECIENTEMENTE EDITADO (DICIEMBRE 2017) POR LA EDITORIAL ELSEVIER ES MUY IMPORTANTE PARA LOS ESTUDIOS SOBRE LOS RIESGOS Y VULNERABILIDAD DE LAS TECNOLOGIAS SISTEMICAS ACTUALES.

SE TRANSCRIBE LA DESCRIPCION, SUS CARACTERISTICAS PRINCIPALES, DESTINATARIOS Y CONTENIDO.

Extreme Events in Geospace 1st Edition (Origins, Predictability, and Consequences)

Editors: **Natalia Buzulukova**

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Description

Extreme Events in Geospace: Origins, Predictability, and Consequences helps deepen the understanding, description, and forecasting of the complex and inter-related phenomena of extreme space weather events. Composed of chapters written by representatives from many different institutions and fields of space research, the book offers discussions ranging from definitions and historical knowledge to operational issues and methods of analysis.

Given that extremes in ionizing radiation, ionospheric irregularities, and geomagnetically induced currents may have the potential to disrupt our technologies or pose danger to human health, it is increasingly important to synthesize the information available on not only those consequences but also the origins and predictability of such events. *Extreme Events in Geospace: Origins, Predictability, and Consequences* is a valuable source for providing the latest research for geophysicists

and space weather scientists, as well as industries impacted by space weather events, including GNSS satellites and radio communication, power grids, aviation, and human spaceflight.

The list of first/second authors includes M. Hapgood, N. Gopalswamy, K.D. Leka, G. Barnes, Yu. Yermolaev, P. Riley, S. Sharma, G. Lakhina, B. Tsurutani, C. Ngwira, A. Pulkkinen, J. Love, P. Bedrosian, N. Buzulukova, M. Sitnov, W. Denig, M. Panasyuk, R. Hajra, D. Ferguson, S. Lai, L. Narici, K. Tobiska, G. Gapirov, A. Mannucci, T. Fuller-Rowell, X. Yue, G. Crowley, R. Redmon, V. Airapetian, D. Boteler, M. MacAlester, S. Worman, D. Neudegg, and M. Ishii.

Key Features

- **Helps to define extremes in space weather and describes existing methods of analysis**
- **Discusses current scientific understanding of these events and outlines future challenges**
- **Considers the ways in which space weather may affect daily life**
- **Demonstrates deep connections between astrophysics, heliophysics, and space weather applications, including a discussion of extreme space weather events from the past**
- **Examines national and space policy issues concerning space weather in Australia, Canada, Japan, the United Kingdom, and the United States**

Readership

Geophysicists and space weather scientists; Industries and agencies dealing with telecommunication, satellite communication, human spaceflight, prevention of electrical outages, and operational aspects of extreme events

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4. Geoeffectiveness of Solar and Interplanetary Structures and Generation of Strong Geomagnetic Storms

5. Statistics of Extreme Space Weather Events

6. Data-Driven Modeling of Extreme Space Weather Events and their Predictability

Part 3: Geomagnetic Storms and Geomagnetically Induced Currents

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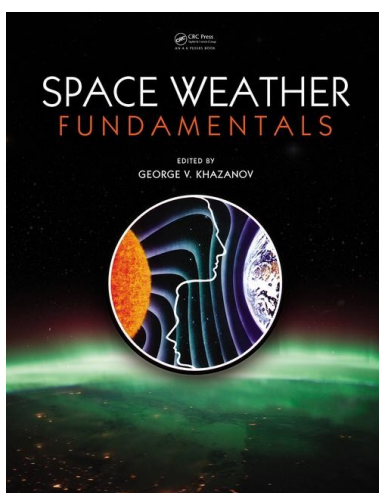
ESTE LIBRO ES LA MAS ACTUAL E IMPORTANTE BIBLIOGRAFIA SOBRE LOS FENOMENOS Y PERTURBACIONES PRODUCIDAS POR LA CONEXIÓN SOL TIERRA EN SU ASPECTO DE LA CLIMATOLOGIA ESPACIAL.

LA ACTIVIDAD DE LA ESPECIE HUMANA TIENE ENTRE OTRAS FENOMENOLOGIAS QUE PRODUCEN DESASTRES NATURALES LAS DESCRIPTA EN ESTE LIBRO.

COMO REFERENCIA A LOS ASPECTOS BASICOS Y FUNDAMENTOS DE LA TEMATICA SE RECOMIENDA EL SIGUIENE TITULO

Space Weather Fundamentals

EDITED BY George V. Khazanov



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Features

- **A completely up-to-date review of the highly topical area of space weather**
- **Edited by a leading expert in the field, who has assembled internationally recognized experts to contribute**
- **Covers both physical principles and practical applications**

Summary

Space weather is one of the most significant natural hazards to human life and health. Conditions of the sun and in the solar wind, magnetosphere, ionosphere, and thermosphere can influence the performance and reliability of space-borne and ground-based technological systems. If conditions in the space environment are adverse, they can cause disruption of satellite operations, communications, navigation, and electric power distribution grids, leading to a variety of socioeconomic losses.

This book provides an overview of our current knowledge and theoretical understanding of space weather formation and covers all major topics of this phenomena, from the sun to the Earth's ionosphere and thermosphere, thus providing a fully updated review of this rapidly advancing field. The book brings together an outstanding team of internationally recognised contributors to cover topics such as solar wind, the earth's magnetic field, radiation belts, the aurora, spacecraft charging, orbital drag and GPS.

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