

NEW BIBLIOGRAPHY FOR GEOMAGNETISM, AERONOMY AND SPACE PHYSICS.

RECOPILED BY Julio Cesar Gianibelli (March 2020)

This reference is a update of Geomagnetism, Aeronomy and Sun-Earth connection disciplines. We have this detailed references:

I) Space Physics and Aeronomy, Vol 1 to Vol 5 with the reference of each volume

II) Space Physics and Aeronomy, Vol 1-5 not separately (volume set).

III) Geomagnetism, Aeronomy and Space Weather: A Journey from the Earth's Core to the Sun (Special Publications of the International Union of Geodesy and Geophysics)

IV-VI) Other interesting titles related to the listed in I-III.

I) 2020 GEOPHYSICAL MONOGRAPH SERIES VOLUME 1 TO 5

Space Physics and Aeronomy, Volume 1: At the Doorstep of Our Star: Solar Physics and Solar Wind (Geophysical Monograph Series) (Inglés) 1st Edición

By [Nour E. Raouafi](#) (Editor), [Angelos Vourlidas](#) (Editor)

- **Serie: Geophysical Monograph Series (Libro 1)**
- **Hardcover: 148 páginas**
- **Editor: American Geophysical Union; Edición: 1 (10 de diciembre de 2020)**
- **Idioma: English**
- **ISBN-10: 1119507537**
- **ISBN-13: 978-1119507536**

Space Physics and Aeronomy, Volume 2: Magnetospheres in the Solar System (Geophysical Monograph Series) (Inglés) 1st Edición

By [Romain Maggiolo](#) (Editor), [Nicolas Andre](#) (Editor), [Hiroshi Hasegawa](#) (Editor), [Daniel T. Welling](#) (Editor)

Serie: Geophysical Monograph Series (Libro 2)

- **Hardcover: 603 páginas**
- **Editor: American Geophysical Union; Edición: 1 (27 de octubre de 2020)**
- **Idioma: English**
- **ISBN-10: 1119507529**
- **ISBN-13: 978-1119507529**

Space Physics and Aeronomy, Volume 3: Advances in Ionospheric Research: Current Understanding and Challenges (Geophysical Monograph Series) (Inglés) 1st Edición

By [Chaosong Huang](#) (Editor), [Gang Lu](#) (Editor)

Serie: Geophysical Monograph Series (Libro 3)

- Hardcover: 320 páginas
- Editor: American Geophysical Union; Edición: 1 (6 de octubre de 2020)
- Idioma: English
- ISBN-10: 1119507553
- ISBN-13: 978-1119507550

Space Physics and Aeronomy, Volume 4: Upper Atmosphere Dynamics and Energetics (Geophysical Monograph Series) (Inglés) 1st Edición

By [Wenbin Wang](#) (Editor), [Yongliang Zhang](#) (Editor)

Serie: Geophysical Monograph Series (Libro 4)

- Hardcover: 388 páginas
- Editor: American Geophysical Union; Edición: 1 (27 de octubre de 2020)
- Idioma: English
- ISBN-10: 1119507561
- ISBN-13: 978-1119507567

Space Physics and Aeronomy, Volume 5: Space Weather Predications and Applications (Geophysical Monograph Series) (Inglés) 1st Edición

By [Philip J. Erickson](#) (Editor)

Serie: Geophysical Monograph Series (Libro 5)

- Hardcover: 217 páginas
- Editor: American Geophysical Union; Edición: 1 (24 de noviembre de 2020)
- Idioma: English
- ISBN-10: 111950757X
- ISBN-13: 978-1119507574

II) Space Physics and Aeronomy, 5 Volume Set (Geophysical Monograph Series) (Inglés) 1st Edición

By [Yongliang Zhang](#) (Editor), [Larry J. Paxton](#) (Editor)

Serie: Geophysical Monograph Series

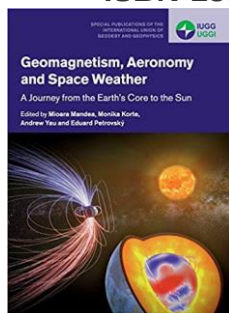
- Hardcover: 1676 páginas
- Editor: American Geophysical Union; Edición: 1 (24 de noviembre de 2020)
- Idioma: English

- ISBN-10: 1119507480
- ISBN-13: 978-1119507482

III) Geomagnetism, Aeronomy and Space Weather: A Journey from the Earth's Core to the Sun (Special Publications of the International Union of Geodesy and Geophysics) (Inglés) 1st Edición

By [Mioara Manda](#) (Editor), [Monika Korte](#) (Editor), [Andrew Yau](#) (Editor), [Eduard Petrovsky](#) (Editor)

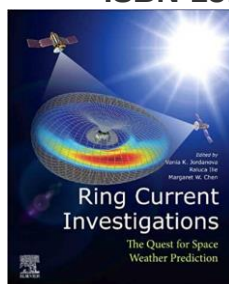
- Serie: Special Publications of the International Union of Geodesy and Geophysics (Libro 4)
- Hardcover: 344 páginas
- Editor: Cambridge University Press; Edición: 1 (2 de enero de 2020)
- Idioma: English
- ISBN-10: 1108418481
- ISBN-13: 978-1108418485



IV) Ring Current Investigations: The Quest for Space Weather Prediction (Inglés) 1st Edición

By [Vania K. Jordanova](#) (Editor), [Raluca Ilie](#) (Editor), [Margaret W. Chen](#) (Editor)

- Paperback: 380 páginas
- Editor: Elsevier; Edición: 1 (15 de junio de 2020)
- Idioma: English
- ISBN-10: 012815571X
- ISBN-13: 978-0128155714

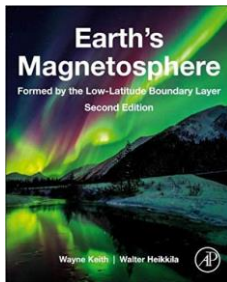


V) Earth's Magnetosphere: Formed by the Low-Latitude Boundary Layer (Inglés) 2nd Edición

By [Wayne Keith](#) (Author), [Walter Heikkila](#) (Author)

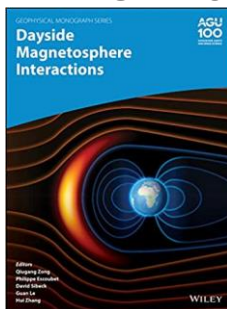
- Paperback: 570 páginas
- Editor: Academic Press; Edición: 2 (15 de septiembre de 2020)
- Idioma: English

- ISBN-10: 0128181605
- ISBN-13: 978-0128181607



VI) Dayside Magnetosphere Interactions (Geophysical Monograph Series) (Inglés) 1st Edición
 de **Quigang Zong** (Author), **Philippe Escoubet** (Author), **David Sibeck** (Author), **Guan Le** (Author), **Hui Zhang** (Author)

- Serie: Geophysical Monograph Series (Libro 249)
- Hardcover: 320 páginas
- Editor: American Geophysical Union; Edición: 1 (14 de abril de 2020)
- Idioma: English
- ISBN-10: 1119509637
- ISBN-13: 978-1119509639



COMMENTS: This bibliography to be published in the year 2020 detailed in items I, II, IV, V, and VI are of great importance to incorporate in the Earth science courses. Item III: “Geomagnetism, Aeronomy and Space Weather: A Journey from the Earth's Core to the Sun”, published in January 2020 is the fundamental up to day reference for theoretical and obsevational basis for the other items. The contents of this book is:

Part I. Introduction:

1. Objectives of geomagnetic and aeronomy studies.

By David Kerridge

2. Why study the geomagnetic field?.

By Steven Constable, Rob Van der Voo, Trond Torsvik, Harald Böhnell, Jacques Zlotnicki, Malcolm J. S. Johnston, Yoichi Sasai, Jean-Louis LeMouél, Mangalathayil Ali Abdu, David Boteler and Jean-Pierre Valet

3. Major scientific contributions of the International Association of Geomagnetism and Aeronomy (IAGA) during the past 100 years.

By Ed Cliver and Eduard Petrovsky

Part II. Geomagnetic Field: Sources and Observations:

4. Geomagnetic field sources – from Earth's core to the sun.

By Daniel Baker

5. Can paleomagnetism distinguish dynamo regimes?.

By Stuart Gilder and Florian Lhuillier

6. Geomagnetic and electromagnetic observations at ground level.

By Arnaud Chulliat, Ute Weckmann, Oliver Ritter, Stuart Gilder, Michael Wack, Elena Kronberg and Ameya Prabhu

7. Modelling internal and external geomagnetic fields using satellite data.

By Ingo Wardinski and Erwan Thébault

8. New insights in far space measurements: large-scale structures and processes in the solar wind and terrestrial magnetosphere.

By Aurelie Marchaudon

Part III. Spatial and Temporal Variations of the Geomagnetic Field:

9. Insights from forward and inverse core field models.

By Nicolas Gillet

10. The global lithospheric magnetic field: world magnetic anomaly maps and models.

By Vincent Lesur and Erwan Thébault

11. The ionospheric field.

By Robert Strangeway, Nanan Balan, Robert Clauer and Yusuke Ebihara

12. The magnetosphere.

By Stephen Fuselier, Robert McPherron, Daniel Baker, Craig Kletzing, Craig Kletzing and Viviane Pierrand

13. Temporal field variations.

By Catherine Constable, Ian Mann, Louis G. Ozeke, Alex Degeling, Kyle R. Murphy, Robert Rankin and Colin Waters

Part IV. Space Weather:

14. Physical processes of space weather.

By Bogdan Hnat and Robert McPherron

15. Space weather effects in the ionosphere, thermosphere and at Earth's surface.

By Ian Mann, Hermann Lühr and Ari Viljanen

16. Technological impacts of space weather.

By Michael Hapgood

Part V. Magnetic Fields Beyond the Earth and Beyond Today

17. Magnetic field evolution in terrestrial bodies from planetesimals to exoplanets.

By Doris Breuer

18. Solar variability: causes, current understanding, prospects for the future.

By Andre Balogh

19. Long and short geomagnetic prediction.

By Weijia Kuang, Andrew Tangborn, Terence Sabaka and Robert Tyler
Index.

This book covers the most important items of the "Sun Earth Connection" discipline. But another important reference published in 2015 regarding a generalization of the effects of the risks that occur on the Solar System and the Earth, to the events of the heliosystem and the cosmos, are described in the handbook entitled: HANDBOOK OF COSMIC HAZARDS AND PLANETARY DEFENSE edited by J. N. PELTON and F. ALLAHADADI (vol 1 and 2; ISBN 9783319039510 for the set) published by Springer.

More recently, and as a contribution to our star: The Sun, in 2019, Springer publishes the book "NEW MILLENNIUM SOLAR PHYSICS" (ISBN 9783030139544) by M. J. ASCHWANDEN, where all the knowledge of available solar astrophysics is presented, for the studies of its effects on planet Earth.

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10 DE MARZO DE 2020.