

## Textbooks and Monographs Related to Space Weather and Space Weather Science

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**Abstract:** We compile a list of English-language textbooks, popular texts and topical monographs, related to the science of space weather and published since 1990. This list was originally prepared as input to the 15th Conference on Space Weather at the 2018 American Meteorological Society Meeting. This document describes textbook resources available to space weather practitioners, broadcasters, meteorologists, scientists and engineers. It has been updated to February 2021.

**Format:** Textbooks with imbedded or end of chapter questions and/or problems are shown in tabular form. The degree of difficulty, as indicated, ranges from basic (popular) to intermediate (undergrad-professional development) to advanced (graduate student and researcher). General exposition-texts are shown as hanging-indent text entries. Links to doi's or Tables of Contents (TOC) are provided if available.

### Books related to Space Weather and Space Environment of the Heliosphere

<b>An Introduction to Space Weather</b>	Basic	M. Moldwin	(2008) On line (2012)
Introductory text on space weather aimed at non-science majors	Cambridge University Press	ISBN: 978-0-521-71112-8	Table of Contents (TOC) at URL below

<https://doi.org/10.1017/CBO9780511801365>

<b>Introduction to the Space Environment</b>	Intermediate	T. Tascione	(2010) 2 <sup>nd</sup> Ed
Textbook on most facets of space weather and its impacts	Krieger Publishing, Malabar, FL, USA	ISBN 9780894640711	

<b>Space Weather and the Physics Behind It</b>	Intermediate	D. J. Knipp	(2011)
Textbook on most facets of space weather and its impacts.	McGraw Hill, New York	ISBN 9780073408903	

<https://spacetechologyseries.com/~spacet9/books/Space-Weather.html>

<b>Space Physics: An Introduction</b>	Intermediate	C. T. Russell, J. G. Luhmann, R. J. Strangeway	(2016) 2nd Ed
A textbook describing the physical basis of space weather	Cambridge University Press	ISBN 9781107098823	TOC available on publisher webpage

<https://www.cambridge.org/us/academic/subjects/earth-and-environmental-science/atmospheric-science-and-meteorology/space-physics-introduction?format=HB>

<b>Space Physics: An Introduction to Plasmas and Particles in the Heliosphere</b>	Intermediate-Advanced	M.-B. Kallenrode	2004
A textbook describing the physical basis of space weather	Springer-Verlag Berlin Heidelberg	ISBN 978-3-642-05829-5	TOC available on publisher webpage

<https://www.springer.com/gp/book/9783540206170>

<b>Basic Space Plasma Physics</b>	Intermediate	W. Baumjohann and R. Treumann	(2012) 2nd Ed
Textbook-like exposition on space plasma physics	Imperial College Press	ISBN 978-1-84816-895-4	

<b>The Solar-Terrestrial Environment: An Introduction to Geospace - the Science of the Terrestrial Upper Atmosphere, Ionosphere, and Magnetosphere</b>	Intermediate	J. K. Hargreaves	1992 1995 Paperback
A textbook describing the physical basis of space weather	Cambridge University Press	ISBN 978-0-521427371	TOC available on publisher webpage

<https://www.cambridge.org/core/books/solarterrestrial-environment/76A9C5BD5FE19629EA5E9BD5DA840D5B>

<b>Science of Space Environment Wave Summit Course</b>	Intermediate	edited by T. Ondoh and K. Marubashi	(2000)
Publication covering most aspects of space weather resulting from a specialized course	Ohmsha Press, Tokyo, Japan,	ISBN 978-1-58603-097-1	

<b>The Space Environment: Implications for Spacecraft Design</b>	Intermediate	A. C. Tribble	(2004) 2 <sup>nd</sup> Ed
A textbook about space weather and space environment effects on spacecraft	Princeton University Press, Princeton, NJ.	ISBN 978-0-691102993	

<b>Physics of Space Storms: From the Solar Surface to the Earth</b>	Intermediate to Advanced	H. E. J. Koskinen	(2011)
A textbook about the physical basis of space weather disturbances	Springer, Heidelberg	ISBN 978-3-642-00319-6	TOC at URL below

<https://www.springer.com/gp/book/9783642003103>

<b>Physics of Solar System Plasma</b>	Intermediate to Advanced	T. E. Cravens	(1997) Hardback (2004) Soft Cover
A textbook about the physical basis of space weather disturbances	Cambridge University Press	ISBN 978-0521611947 ISBN 0521611946	TOC at URL below

<https://doi.org/10.1017/CBO9780511529467>

<b>Physics of the Earth's Space Environment</b>	Intermediate to Advanced	G. Proiss	(2003) Hardback E-book
A textbook about the physical basis of space environment and geospace storms	Springer	ISBN 3-540-21426-7	TOC at URL below

<https://link.springer.com/book/10.1007/978-3-642-97123-5>

<b>Physics of the space environment</b>	Advanced	T. I. Gombosi	(1998) Softcover (2009) E-book
Comprehensive exposition of the physics of the space environment	Cambridge University Press	ISBN 9780511529474	TOC at URL below

<https://doi.org/10.1017/CBO9780511529474>

<b>The Space Environment and Its Effects on Space Systems</b>	Intermediate to Advanced	V. L. Pisacane	(2018) 2 <sup>nd</sup> Ed
A textbook about the physical basis of space weather and space environment effects on systems	AIAA Education Series	ISBN-10: 1624103537	TOC at URL below

<https://doi.org/10.2514/4.103537>

<b>Heliophysics Series</b>	Advanced Textbook series	Edited by K. Schrijver, G. Sisco, F. Bagenal, and J. Sojka	2012-2017
A textbook series about the physical basis of space weather in the heliosphere	Cambridge University Press	See ISBNs below	TOC by searching on title and ISBN at publisher website

- a. Heliophysics I: plasma physics of the local cosmos, ISBN 9780521110617
- b. Heliophysics II: space storms and radiation: causes and effects ISBN 9780521760515
- c. Heliophysics III: evolving solar activity and the climates of space and earth ISBN 9780521130202
- d. Heliophysics IV: active stars, their astrospheres, and impacts on planetary environments ISBN 9781107090477
- e. Heliophysics V: space weather and society (online only, currently FREE ACCESS),  
<https://cpaess.ucar.edu/sites/default/files/heliophysics/documents/HSS5.pdf>

## Space Weather Explanation, Exposition and History

**Storms in Space, J. W. Freeman**, (2001) Provides details of Earth's space environment, space weather effects of solar activity and forecasting challenges, Cambridge University Press, New York, ISBN 0-521-66038-6, Popular book (Basic)

**Solar Storms: 2000 Years of Human Calamity**, S. Odenwald (2015) Reveals the history of space weather via stories and anecdotes, CreateSpace Independent Publishing Platform, Washington, Soft cover, ISBN 9781505941463, Popular book (Basic)

**Storms from the Sun: The Emerging Science of Space Weather**, M. J. Carlowicz and R. E. Lopez (2002) Overview of space weather storms and the underlying science, including stories and anecdotes, J. Henry Press, Washington, DC, ISBN 0-309-07642-0 Popular book (Basic)

**Sentinels of the Sun, Forecasting Space Weather**, Barbara Poppe, (2006), Johnson Books, Big Earth Publishing, Boulder CO USA. ISBN 1-55566-379-6, Popular book (Basic)

**The Maunder Minimum And The Variable Sun-earth Connection**, W. W. Soon and S. H. Yaskell (2003), World Scientific Publishing Co. Singapore, ISBN 9789814486651, Popular book (Basic)

**The Sun, The Earth and Near-Space Environment**, A Guide to the Sun Earth System, John Eddy, (2009) A basic overview of the space weather system, including sources, intermediaries and effects. (NASA), ISBN 978-0-16-08308-8; FREE ACCESS e-book at [https://lwstrt.gsfc.nasa.gov/images/pdf/john\\_eddy/SES\\_Book\\_Interactive.pdf](https://lwstrt.gsfc.nasa.gov/images/pdf/john_eddy/SES_Book_Interactive.pdf)

**The Sun Kings**, Stuart Clark, (2009), Details the rise of space weather after the first great solar storm that affected modern technology, Princeton University Press, ISBN 9780691141268, Popular book (Basic)

**The Sun and Space Weather**, A. Hanslmeier, (2007), Springer, 2nd Edition, An exposition about space weather and space environment impacts, E-book, Softcover, Hardcover <https://doi.org/10.1007/978-1-4020-5604-8>

**Space Weather**, M. Hapgood, (2017) IOP Publishing, An introduction to space weather and associated critical research topics, ISBN 978-0-7503-1372-8 (ebook), **FREE ACCESS** DOI 10.1088/978-0-7503-1372-8, <https://iopscience.iop.org/book/978-0-7503-1372-8>

**Space Weather: Physics and Effects**, Edited by V. Bothmer and I. A. Daglis (2007), Springer Praxis Books, Heidelberg, ISBN 978-3-540-23907-9, TOC at <https://link.springer.com/book/10.1007/978-3-540-34578-7>

**Aurora Observing and Recording Nature's Spectacular Light Show**, N. Bone, Springer, ISBN 978-0-387-68469-7, <https://www.springer.com/gp/book/9780387360522>

**Aurora: In Search of the Northern Lights**, M. Windridge (2016). Harper Collins; ISBN-13: 978-0008156091

**50 Years of Research at the Belgian Institute for Space Aeronomy**, Edited by Belgisch instituut voor ruimte-aeronomie -institut d'aéronomie spatiale de Belgique, (2014), ISBN: 9789090289311, **FREE ACCESS**, <http://50.aeronomie.be/index.php/2-uncategorised/140-50-years-book>

## **Books Related to Specific Regions where Space Weather Develops and/or Impacts Technological Systems**

<b>Physics of the Sun A First Course</b>	Advanced	D. Mullan	(2009)
	Taylor & Francis Group	ISBN 9780429140983	TOC at URL below

<https://www.taylorfrancis.com/books/9780429140983>

<b>Physics of the Solar Corona - - An Introduction</b>	Advanced	M. Aschwanden	(2005)
	Springer	ISBN 978-3-540-30766-2	TOC at URL below

<https://www.springer.com/gp/book/9783540307655>

<b>Principles of Heliophysics: a description of the universal processes behind planetary habitability</b>	Advanced	K. Schrijver et al	(2018)
		<a href="https://arxiv.org/abs/1910.14022">arXiv:1910.14022</a>	Pre-print Free Access

<b>Magnetohydrodynamics of the Sun</b>	Advanced	E. Priest	(2014)
	Cambridge University Press	eBook ISBN: 9781107776760 HB ISBN: 978-0521854719	TOC at URL below

<https://doi.org/10.1017/CBO9781139020732>

<b>Basics of the Solar Wind</b>	Advanced	N. Meyer-Vernet	(2007)
	Cambridge University Press	ISBN 9780511535765	TOC at URL below

<https://doi.org/10.1017/CBO9780511535765>

<b>Introduction to Geomagnetically Trapped Radiation</b>	Advanced	M. Walt	(2005)
A textbook about the radiation belts	Cambridge University Press	ISBN: 9780521616119	TOC at URL below

<https://doi.org/10.1017/CBO9780511524981>

<b>Ionospheres: physics, plasma physics, and chemistry</b>	Advanced	R. Schunk and A. Nagy	2 <sup>nd</sup> Ed (2018)
Describes the physical basis of space weather in Earth's ionosphere	Cambridge University Press	ISBN 978 1108462105	TOC at URL below

<https://www.cambridge.org/us/academic/subjects/earth-and-environmental-science/planetary-science-and-astrobiology/ionospheres-physics-plasma-physics-and-chemistry-2nd-edition?format=PB&isbn=9781108462105>

<b>Physics of the Upper Polar Atmosphere</b>	Intermediate -Advanced	A. Brekke	(2013)
Describes the physical basis of space weather in Earth's upper atmosphere	Springer	ISBN 978-3-642-27401-5	TOC at URL below

<https://www.springer.com/gp/book/9783642274008>

<b>The Ionosphere: Communications, Surveillance, and Direction Finding</b>	Intermediate-Advanced	L. F. McNamara	(1991) Hardcover
A textbook about uses of the ionosphere and space weather that occurs there	Krieger Publishing, Malabar, FL, USA	ISBN 0-89464-040-2	

<b>Physics and Chemistry of the Upper Atmosphere</b>	Advanced	M. H. Rees	(1989) Online 2011
	Cambridge University Press	ISBN 9780511573118	TOC at URL below

<https://doi.org/10.1017/CBO9780511573118>

<b>An Introduction to Atmospheric Gravity Waves</b>	Advanced	C. Nappo	(2012) 2 <sup>nd</sup> Ed
	Elsevier	ISBN: 9780123852243	TOC at URL below

<https://www.elsevier.com/books/an-introduction-to-atmospheric-gravity-waves/nappo/978-0-12-385223-6>

**The Sun from Space**, K. Lang, (2009), Springer, ISBN 978-3-540-76953-8

<https://www.springer.com/gp/book/9783540769521>

**Sunspots and Starspots**, J. Thomas, and N. Weiss, (2008) Cambridge: Cambridge University Press, ISBN: 9780521860031,

TOC: <https://www.cambridge.org/gb/academic/subjects/physics/astrophysics/sunspots-and-starspots?format=HB&isbn=9780521860031>

**Solar and Stellar Magnetic Activity**, C. Schrijver, C., and C. Zwaan, (2000), Cambridge University Press,

<https://doi.org/10.1017/CBO9780511546037>

**Energetic Particles in the Heliosphere**, Simnett, George M., Springer, (2017), ISBN 978-3-319-43495-7

<https://www.springer.com/gp/book/9783319434933>

**The Sun, the Solar Wind, and the Heliosphere**, Edited by M P Miralles, and J. Sánchez Almeida (2011), Springer, ISBN 978-90-481-9786-6, TOC <https://www.springer.com/gp/book/9789048197866#>

**The Dynamic Magnetosphere**, Edited by W. Liu, and M. Fujimoto, (2011), Springer, ISBN 978-94-007-0500-5,

TOC <https://www.springer.com/gp/book/9789400705005>

**The Dynamic Loss of Earth's Radiation Belts**, Edited by A. Jaynes and M Usanova (2019), Elsevier, ISBN: 9780128133996

TOC: <https://www.elsevier.com/books/the-dynamic-loss-ofearths-radiation-belts/jaynes/978-0-12-813371-2>

**The Earth's Plasmasphere**, J. F. Lemaire and K. I. Gringauz, (2005), Cambridge University Press, ISBN: 9780521675550,  
<https://www.cambridge.org/core/books/earths-plasmasphere/6D7B1A034B455ED14DA2457432B3A44B>

**The Earth's Plasmasphere: A CLUSTER and IMAGE Perspective**, Edited by F. Darrouzet, J. de Keyser, and V. Pierrard, (2009)  
Springer, ISBN 978-1-4419-1322-7, <https://www.springer.com/gp/book/9781441913227>

**Compendium of Aeronomy**, T. Tohmatsu, Translator: T. Ogawa, (1990), Springer, ISBN 978-0-7923-0748-8

**The Earth's Ionosphere: Plasma Physics and Electrodynamics**, M. Kelley, (2009), Academic Press ISBN: 9780120884254,  
<https://doi.org/10.1016/B978-0-12-404013-7.X5001-1>

**The Dynamical Ionosphere**, M. Materassi, B. Forte, A. Coster, S. Skone, (2019) Elsevier, ISBN: 9780128147825  
<https://www.elsevier.com/books/the-dynamical-ionosphere/materassi/978-0-12-814782-5>

**The High-Latitude Ionosphere and its Effects on Radio Propagation**, R. Hunsucker and J. Hargreaves, (2002)  
Cambridge: Cambridge University Press, doi:10.1017/CBO9780511535758

**Ionospheric Prediction and Forecasting**, B. Zolesi and L. R. Cander, (2014), Springer-Verlag Berlin Heidelberg, DOI: 10.1007/978-3-642-38430-1\_3, <https://link.springer.com/book/10.1007/978-3-642-38430-1>

**Solar Activity and Earth's Climate**, R. Benestad, (2002), Springer-Praxis, ISBN 3-54043-302-3,  
<https://www.springer.com/gp/book/9783540306207>

**Ionospheric Space Weather**, L. R. Cander, (2019) Springer Nature Switzerland AG, ebook ISBN 978-3-319-99331-7,  
DOI 10.1007/978-3-319-99331-7

**Atmospheric and Space Sciences: Ionospheres and Plasma Environments, Volume 2**, E. Yiğit, (2018), Springer, ISBN 978-3-319-62005-3

**Aeronomy of the Middle Atmosphere, Chemistry and Physics of the Stratosphere and Mesosphere**, G. Brasseur and S. Solomon (2005) Springer, ISBN 978-1-4020-3284-4 TOC  
<https://www.springer.com/gp/book/9781402032844#aboutBook>

**Radio Wave Propagation in the Ionosphere**, K. Merriman, (2016) Willford Press, ISBN 9781682850572

**Spacecraft-Environment Interactions**, D. Hastings and H. Garrett, (1996), Cambridge: Cambridge University Press,  
doi:10.1017/CBO9780511525032

**Principles of Radiation Interaction In Matter And Detection** (2016) C. Leroy and P.-G. Rancoita (4th Ed), World Scientific, ISBN: 978-981-4603-18-8, ebook ISBN: 978-981-4603-20-1, <https://doi.org/10.1142/9167>

**Space Weather and Telecommunications**, J. M. Goodman (2005), Springer-Verlag US, softcover 978-1-4419-3651-6, (eBook) 978-0-387-23671-1, <https://link.springer.com/book/10.1007/b102193>

**Space Weather, Environment and Societies**, J. Liliensten and J. Bornarel (2006). Springer, Heidelberg, Hardcover, Ebook, ISBN 978-1-4020-4332-1 <https://www.springer.com/gp/book/9781402043314>

**Introduction to Geomagnetic Fields**, W. Campbell, (2003) Cambridge University Press, doi:10.1017/CBO9781139165136

**Space Weather Monitoring by Ground-Based Means: PC Index**, O. Troshichev, and A. Janzhura, (2012), Springer, ISBN 978-3-642-16802-4, <https://www.springer.com/gp/book/9783642168024>

**The Earth's Electric Field**, M. Kelley (2013), Elsevier Science, ISBN: 9780123978837 <https://www.elsevier.com/books/the-earth-s-electric-field/kelley/978-0-12-397886-8>

**Atmospheric Effects in Space Geodesy**, Edited by J. Böhm, and H. Schuh, (2013), Springer ISBN 978-3-642-36931-5, TOC: <https://link.springer.com/book/10.1007%2F978-3-642-36932-2#toc>

**GNSS Remote Sensing: Theory, Methods and Applications**, S. Jin, E. Cardellach and F. Xie (2014), ISBN 978-94-007-7482-7, TOC:  
<https://link.springer.com/book/10.1007/978-94-007-7482-7#toc>

## **Books Related to Plasma Physics & Magnetohydrodynamics** (sampling only)

Physics of Space Plasmas An Introduction	Intermediate-Advanced	G. Parks	(1991) (2019) E book
	CRC Press	ISBN 9780429301674	TOC at URL below

<https://www.routledge.com/Physics-Of-Space-Plasmas-An-Introduction/Parks/p/book/9780367282929>

The Physics of Plasmas	Advanced	T. Boyd, T., & J. Sanderson	(2003)
	Cambridge University Press	ISBN 9780511755750	TOC at URL below

<https://doi.org/10.1017/CBO9780511755750>

Introduction to Modern Magnetohydrodynamics	Advanced	S. Galtier	(2016)
	Cambridge University Press	ISBN 9781316665961	TOC at URL below

<https://doi.org/10.1017/CBO9781316665961>

**Introduction to Plasma Physics With Space and Laboratory Applications**, D. A. Gurnett and A. Bhattacharjee, (2005), Cambridge University Press, ISBN 9780511809125, <https://doi.org/10.1017/CBO9780511809125>

**Magnetic Reconnection: MHD Theory and Applications**, E. Priest, and T. Forbes, Cambridge University Press, 2000, ISBN: 9780511525087, TOC at <https://doi.org/10.1017/CBO9780511525087>

**Reconnection of Magnetic Fields: Magnetohydrodynamics and Collisionless Theory and Observations**  
Edited by J. Birn and E. Priest, Cambridge University Press, 2007, doi:10.1017/CBO9780511536151

**Fundamentals of Plasma Physics**, P. Bellan, (2006), Cambridge University Press, ISBN 978-0521528009

## **Monographs, Edited Volumes and Meeting/Conference Proceedings**

**Space Storms and Space Weather Hazards.** Edited by I. Daglis, (2001) *NATO Science Series, Series II: Mathematics, Physics and Chemistry* 38. Proc. inst., Hersonissos, Crete, June 2000. Kluwer Academic, Norwell, Mass., ISBN 1-4020-0030-8)

**The Behavior of Systems in the Space Environment**, Edited by R. N. DeWitt, D. Duston and A. K. Hyder (1993), Proceedings of the NATO Advanced Study Institute, Pitlochry, Scotland July 7-19, 1991, Springer, ISBN 978-94-010-4907-8,  
TOC at <https://link.springer.com/book/10.1007/978-94-011-2048-7>

**From the Sun: Auroras, Magnetic Storms, Solar Flares, Cosmic Rays**, edited by S. T. Suess and B. T Tsurutani (1998), American Geophysical Union, Online ISBN:9781118665305, <https://agupubs.onlinelibrary.wiley.com/doi/book/10.1029/SP050>

**Advances in Space Environment Research, Volume I**, Editor-in-chief: A. C.-L. Chian, (2003), Springer, Proceedings of two workshops, the World Space Environment Forum and the High Performance Computing in Space Environment Research organized by the World Institute for Space Environment Research (WISER) from 22 July to 2 August 2002 in Adelaide, Australia. ISBN 978-94-007-1069-6, <https://www.springer.com/gp/book/9781402012785>

**Space Weather: The Physics Behind a Slogan**, Edited by K. Scherer, H. Fichtner, B. Heber, and U. Mall, (2005) Proceedings from a space weather conference with emphasis on physical processes. (Springer, Heidelberg). ISBN 978-3-540-22907-0

**The Magnetospheric Cusps: Structure and Dynamics**, Edited by: T. A. Fritz and S. F. Fung, Springer, ISBN 978-1-4020-3605-7, Advanced, <https://www.springer.com/gp/book/9781402034381>

**Handbook of the Solar-Terrestrial Environment**, Edited by: Y. Kamide and A. Chian, (2007), Springer Verlag, ISBN 9783540463146 Intermediate to Advanced, <https://link.springer.com/book/10.1007/978-3-540-46315-3>

**Auroral Physics**, Ed. C. I. Meng, M. J. Rycroft, L. A. Frank, (2012), Cambridge University Press, (1991), ISBN: 9780521157414, re-issue softcover (2012)

**Aeronomy of the Earth's Atmosphere and Ionosphere**, Edited by M. A. Abdu, D. Pancheva, and A. Bhattacharyya (2011) Springer, ISBN 978-94-007-0325-4

**Solar Origins of Space Weather and Space Climate**, Edited by I. González Hernández, R. Komm, A. Pevtsov, and J. Leibacher, (2014), Based on the presentations given at the 26th National Solar Observatory (NSO) Summer Workshop 2012, Springer, ISBN 978-1-4939-1182-0

**Space Weather Fundamentals**, Edited by George V. Khazanov, (2016), A monograph about the physical basis of space weather, CRC Press, ISBN 9780367875558, <https://www.routledge.com/Space-Weather-Fundamentals/Khazanov/p/book/9780367875558>

**Space Weather of the Heliosphere: Processes and Forecasts**, Edited by C. Foullon and O. E. Malandraki, (2018), International Astronomical Union Symposium 335, Cambridge University Press, ISBN 9781107192409

**Ring Current Investigations: The Quest for Space Weather Prediction**, Edited by V. Jordanova, R. Ilie, and M. Chen (2020), Elsevier, ISBN: 9780128155714, eBook ISBN: 9780128155721, <https://www.sciencedirect.com/book/9780128155714/ring-current-investigations?via=ihub=>

**Geomagnetism, Aeronomy and Space Weather**, Edited by M. Mandea, M. Korte, A. Yau and E. Petrovsky, (2020) A monograph about the interacting systems of space weather and special publication to mark the centenary of IUGG, Cambridge University Press, ISBN 978-1-108-41848-5 and DOI: 10.1017/978110829013

**Machine Learning Techniques for Space Weather**, Edited by E. Camporeale, S. Wing and J. Johnson (2018), Elsevier, ISBN: 9780128117880, eBook ISBN: 9780128117897, <https://www.elsevier.com/books/machine-learning-techniques-for-space-weather/camporeale/978-0-12-811788-0>

**Extreme Events in Geospace, Origins, Predictability, and Consequences**, Edited by N. Buzulukova, (2018), Elsevier eBook ISBN: 9780128127018 , <https://www.elsevier.com/books/extreme-events-in-geospace/buzulukova/978-0-12-812700-1>

**Extreme Solar Particle Storms: The Hostile Sun**, Edited by F. Miyake, I. Usoskin and S. Poluianov, (2002) IOP Publishing Ltd, Online ISBN: 978-0-7503-2232-4, <https://iopscience.iop.org/book/978-0-7503-2232-4>

**The Human Factor in a Mission to Mars: An Interdisciplinary Approach**, Edited by Konrad Szocik (2019), Individual chapters devoted to space weather/environment, Springer, ISBN 978-3-030-02058-3, eBook: ISBN 978-3-030-02059-0

**Ionospheric Multi-Spacecraft Analysis Tools Approaches for Deriving Ionospheric Parameters**, Edited by M. W. Dunlop, and H. Lühr, (2020) Springer, ISBN 978-3-030-26731-5

## **Series Related to Space Environment, Plasma and Heliospheric Physics**

This list covers regions and processes that may relate to space weather. It is not comprehensive

**AGU Geophysical Monograph** (Since 1990, Space Weather Title ISBNs provided)

<https://agupubs.onlinelibrary.wiley.com/series/5064>

[Vol. 248, Dayside Magnetospheric Interactions](#)

[Vol. 244, Geomagnetically Induced Currents from the Sun to the Power Grid](#)

[Vol. 235, Electric Currents in Geospace and Beyond](#)

[Vol. 230, Dawn-Dusk Asymmetries in Planetary Plasma Environments](#)

[Vol. 222, Magnetosphere-Ionosphere Coupling in the Solar System](#)

[Vol. 220, Ionospheric Space Weather: Longitude and Hemispheric Dependences and Lower Atmosphere Forcing](#) Edited by T. Fuller-Rowell, E. Yizengaw, P. H. Doherty. S. Basu, (2016), Print ISBN: 9781118929209

[Vol. 216, Low-Frequency Waves in Space Plasmas](#)

[Vol. 215, Auroral Dynamics and Space Weather](#) Edited by Y. Zhang and L. J. Paxton (2015), AGU Geophysical Monograph Series, Print ISBN:9781118978702 | DOI:10.1002/9781118978719

[Vol. 207, Magnetotails in the Solar System](#)

[Vol. 201, Modeling the Ionosphere-Thermosphere System](#), edited by J. Huba, R. Schunk, and G. Khazanov, (2014), ISBN:978-0-87590-490-0,

[Vol. 199, Dynamics of the Earth's Radiation Belts and Inner Magnetosphere](#)

[Vol. 197, Auroral Phenomenology and Magnetospheric Processes: Earth and Other Planets Perspective](#)

[Vol. 181, Midlatitude Ionospheric Dynamics and Disturbances](#)

[Vol. 169, Magnetospheric ULF Waves: Synthesis and New Directions](#)

[Vol. 167, Recurrent Magnetic Storms: Corotating Solar Wind Streams](#)

[Vol. 165, Solar Eruptions and Energetic Particles](#)

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