Helen Mavromichalaki

List of Publications by Year
in descending order

146 papers	2,636 citations	186265 28 h-index	265206 42 g-index
147 all docs	147 docs citations	147 times ranked	1259 citing authors

#	Article	IF	Citations
1	Applications and usage of the real-time Neutron Monitor Database. Advances in Space Research, 2011, 47, 2210-2222.	2.6	105
2	Magnetospheric effects in cosmic rays during the unique magnetic storm on November 2003. Journal of Geophysical Research, 2005, 110, .	3.3	101
3	Proton Enhancements and Their Relation to the X-Ray Flares During the Three Last Solar Cycles. Solar Physics, 2005, 229, 135-159.	2.5	93
4	Modeling ground level enhancements: Event of 20 January 2005. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	79
5	Coronal Mass Ejections and Non-recurrent Forbush Decreases. Solar Physics, 2014, 289, 3949-3960.	2.5	74
6	A catalogue of high-speed solar-wind streams: Further evidence of their relationship to Ap-index. Solar Physics, 1988, 115, 345-365.	2.5	69
7	Positive and negative ionospheric disturbances at middle latitudes during geomagnetic storms. Geophysical Research Letters, 2000, 27, 3579-3582.	4.0	59
8	Solar Activity Parameters and Associated Forbush Decreases During the Minimum Between Cycles 23 and 24 and the Ascending Phase of Cycle 24. Solar Physics, 2016, 291, 1025-1041.	2.5	59
9	The Global Survey Method Applied to Ground-level Cosmic Ray Measurements. Solar Physics, 2018, 293, 1.	2.5	54
10	Statistical analysis of solar proton events. Annales Geophysicae, 2004, 22, 2255-2271.	1.6	53
11	Galactic Cosmic Ray Density Variations in Magnetic Clouds. Solar Physics, 2015, 290, 1429-1444.	2.5	49
12	On Mid-Term Periodicities in Cosmic Rays. Solar Physics, 2010, 266, 173-180.	2.5	48
13	The First Ground-Level Enhancement of Solar Cycle 24 on 17 May 2012 and Its Real-Time Detection. Solar Physics, 2014, 289, 423-436.	2.5	47
14	Cosmic-Ray Modulation: An Empirical Relation with Solar and Heliospheric Parameters. Solar Physics, 2007, 245, 369-390.	2.5	44
15	Peak-Size Distributions of Proton Fluxes and Associated Soft X-Ray Flares. Solar Physics, 2007, 246, 457-470.	2.5	42
16	Optimizing the realâ€time ground level enhancement alert system based on neutron monitor measurements: Introducing <i>GLE Alert Plus</i>. Space Weather, 2014, 12, 633-649.	3.7	37
17	On the Analysis of the Complex Forbush Decreases ofÂJanuaryÂ2005. Solar Physics, 2010, 266, 181-193.	2.5	35
18	Galactic Cosmic Ray Modulation and the Last Solar Minimum. Solar Physics, 2012, 280, 255-271.	2.5	35

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19	Precursor Effects in Different Cases of Forbush Decreases. Solar Physics, 2012, 276, 337-350.	2.5	35
20	Low- and high-frequency spectral behavior of cosmic-ray intensity for the period 1953â€“1996. Annales Geophysicae, 2003, 21, 1681-1689.	1.6	35
21	Time-lag of cosmic-ray intensity. Astrophysics and Space Science, 1984, 106, 61-71.	1.4	34
22	Fast Plasma Streams Recorded Near the Earth During 1985â€“1996. Solar Physics, 1998, 183, 181-200.	2.5	34
23	A Complete Catalogue of High-Speed Solar Wind Streams during Solar Cycle 23. Solar Physics, 2014, 289, 995-1012.	2.5	34
24	Monitoring and Forecasting of Great Solar Proton Events Using the Neutron Monitor Network in Real Time. IEEE Transactions on Plasma Science, 2004, 32, 1478-1488.	1.3	33
25	THE GROUND-LEVEL ENHANCEMENT OF 2012 MAY 17: DERIVATION OF SOLAR PROTON EVENT PROPERTIES THROUGH THE APPLICATION OF THE NMBANGLE PPOLA MODEL. Astrophysical Journal, 2014, 785, 160.	4.5	33
26	Effective Acceleration Model for the Arrival Time of Interplanetary Shocks driven by Coronal Mass Ejections. Solar Physics, 2017, 292, 1.	2.5	32
27	Geant4 software application for the simulation of cosmic ray showers in the Earthâ€™s atmosphere. New Astronomy, 2014, 33, 26-37.	1.8	31
28	Space weather hazards and their impact on human cardio-health state parameters on Earth. Natural Hazards, 2012, 64, 1447-1459.	3.4	30
29	Short-term variations of cosmic-ray intensity and flare related data in 1981â€“1983. New Astronomy, 2003, 8, 777-794.	1.8	29
30	Intense Ground-Level Enhancements of Solar Cosmic Rays During the Last Solar Cycles. Solar Physics, 2011, 269, 155-168.	2.5	29
31	Solar cosmic rays during the extremely high ground level enhancement on 23 February 1956. Annales Geophysicae, 2005, 23, 2281-2291.	1.6	26
32	Space weather prediction by cosmic rays. Advances in Space Research, 2006, 37, 1141-1147.	2.6	26
33	Modeling the solar cosmic ray event of 13 December 2006 using ground level neutron monitor data. Advances in Space Research, 2009, 43, 474-479.	2.6	26
34	High-Speed Solar Wind Streams and Geomagnetic Storms During Solar Cycle 24. Solar Physics, 2018, 293, 1.	2.5	26
35	Asymmetric variations of the coronal green line intensity. Solar Physics, 1988, 115, 367-384.	2.5	25
36	Effect of geomagnetic disturbances on physiological parameters: An investigation on aviators. Advances in Space Research, 2011, 48, 1545-1550.	2.6	24

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37	A study of the ground level enhancement of 23 February 1956. Advances in Space Research, 2005, 35, 697-701.	2.6	23
38	Interplanetary Coronal Mass Ejections as the Driver of Non-recurrent Forbush Decreases. Astrophysical Journal, 2020, 890, 101.	4.5	22
39	Latitudinal and longitudinal dependence of the cosmic ray diurnal anisotropy during 2001â€“2014. Annales Geophysicae, 2016, 34, 1053-1068.	1.6	21
40	Realâ€Time Detection of the Ground Level Enhancement on 10 September 2017 by A.Ne.Mo.S.: System Report. Space Weather, 2018, 16, 1797-1805.	3.7	21
41	Time-evolution of cosmic-ray intensity modulation. Solar Physics, 1989, 122, 345-363.	2.5	20
42	The burst of solar and geomagnetic activity in Augustâ€“September 2005. Annales Geophysicae, 2009, 27, 1019-1026.	1.6	20
43	Unexpected burst of solar activity recorded by neutron monitors during Octoberâ€“November 2003. Advances in Space Research, 2005, 35, 691-696.	2.6	19
44	Real-time GLE alert in the ANMODAP Center for December 13, 2006. Advances in Space Research, 2009, 43, 728-734.	2.6	19
45	Implementation of the ground level enhancement alert software at NMDB database. New Astronomy, 2010, 15, 744-748.	1.8	19
46	Solar energetic particle interactions with the Venusian atmosphere. Annales Geophysicae, 2016, 34, 595-608.	1.6	19
47	Cosmic-ray intensity related to solar and terrestrial activity indices in solar cycle No. 20. Astrophysics and Space Science, 1981, 74, 303-317.	1.4	18
48	The Asymptotic Longitudinal Cosmic Ray Intensity Distribution as a Precursor of Forbush Decreases. Solar Physics, 2012, 280, 641-650.	2.5	18
49	Galactic cosmic ray spectral index: the case of Forbush decreases of March 2012. Astrophysics and Space Science, 2018, 363, 1.	1.4	18
50	Spectral Analysis of Solar and Geomagnetic Parameters in Relation to Cosmic-ray Intensity for the Time Period 1965â€‰â€“â€‰2018. Solar Physics, 2019, 294, 1.	2.5	18
51	Neutron Monitor Network in Real Time and Space Weather. , 2004, , 301-317.		18
52	Hale-cycle effects in cosmic-ray intensity during the last four cycles. Astrophysics and Space Science, 1997, 246, 7-14.	1.4	17
53	Frequency distributions of solar proton events. Journal of Atmospheric and Solar-Terrestrial Physics, 2002, 64, 489-496.	1.6	17
54	Forbush Decreases Associated with Western Solar Sources and Geomagnetic Storms: A Study on Precursors. Solar Physics, 2013, 283, 557-563.	2.5	17

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55	A study on the various types of arrhythmias in relation to the polarity reversal of the solar magnetic field. Natural Hazards, 2014, 70, 1575-1587.	3.4	17
56	Interplanetary Coronal Mass Ejections Resulting from Earth-Directed CMEs Using SOHO and ACE Combined Data During Solar Cycle 23. Solar Physics, 2017, 292, 1.	2.5	17
57	World grid of cosmic ray vertical cut-off rigidity for the last decade. Advances in Space Research, 2021, 67, 2231-2240.	2.6	17
58	The sun as a significant agent provoking earthquakes. European Physical Journal: Special Topics, 2021, 230, 287-333.	2.6	17
59	Solar-cycle phenomena in cosmic-ray intensity: Differences between even and odd cycles. Earth, Moon and Planets, 1988, 42, 233-244.	0.6	16
60	Long-term modulation of the coronal index of solar activity. Solar Physics, 2002, 206, 401-414.	2.5	16
61	Coronal index as a solar activity index applied to space weather. Advances in Space Research, 2005, 35, 410-415.	2.6	16
62	A New Version of the Neutron Monitor Based Anisotropic GLE Model: Application to GLE60. Solar Physics, 2010, 264, 239-254.	2.5	16
63	Application of diffusion ? Convection model to diurnal anisotropy data. Earth, Moon and Planets, 1989, 47, 61-72.	0.6	15
64	28 OCTOBER 2003 FLARE: HIGH-ENERGY GAMMA EMISSION, TYPE II RADIO EMISSION AND SOLAR PARTICLE OBSERVATIONS. International Journal of Modern Physics A, 2005, 20, 6705-6707.	1.5	15
65	Impact of space weather on human heart rate during the years 2011â€“2013. Astrophysics and Space Science, 2017, 362, 1.	1.4	15
66	Simulation of long-term cosmic-ray intensity variation. Solar Physics, 1990, 125, 409-414.	2.5	14
67	Cosmic Ray Radiation Effects on Space Environment Associated to Intense Solar and Geomagnetic Activity. IEEE Transactions on Nuclear Science, 2007, 54, 1089-1096.	2.0	14
68	Cosmic ray variations of solar origin in relation to human physiological state during the December 2006 solar extreme events. Advances in Space Research, 2009, 43, 523-529.	2.6	14
69	The unusual cosmic ray variations in July 2005 resulted from western and behind the limb solar activity. Advances in Space Research, 2009, 43, 582-588.	2.6	14
70	Coronal line intensity as an integrated index of solar activity. Astrophysics and Space Science, 1990, 164, 117-130.	1.4	13
71	Cosmic-Ray Variations During the Two Greatest Bursts of Solar Activity in the 23rd Solar Cycle. Solar Physics, 2004, 224, 345-358.	2.5	13
72	Solar activity and the associated ground level enhancements of solar cosmic rays during solar cycle 23. Astrophysics and Space Sciences Transactions, 2011, 7, 439-443.	1.0	13

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73	Online application for the barometric coefficient calculation of the NMDB stations. New Astronomy, 2013, 19, 10-18.	1.8	13
74	Onset Time of the GLE 72 Observed at Neutron Monitors and its Relation to Electromagnetic Emissions. Solar Physics, 2019, 294, 1.	2.5	13
75	Large amplitude wave-trains of cosmic-ray intensity. Astrophysics and Space Science, 1980, 71, 101-110.	1.4	12
76	Neutron monitor asymptotic directions of viewing during the event of 13 December 2006. Advances in Space Research, 2009, 43, 518-522.	2.6	12
77	An empirical model for the 11-year cosmic-ray modulation. Earth, Moon and Planets, 1987, 37, 79-88.	0.6	11
78	The first Forbush decrease of solar cycle 24. Journal of Physics: Conference Series, 2013, 409, 012202.	0.4	11
79	A study of the possible relation of the cardiac arrhythmias occurrence to the polarity reversal of the solar magnetic field. Advances in Space Research, 2017, 59, 366-378.	2.6	11
80	The large amplitude event observed over the period 22 may to 4 June, 1973. Astrophysics and Space Science, 1980, 68, 137-149.	1.4	10
81	The evolution and the secondary maximum of the green line intensity. Solar Physics, 1982, 76, 181-190.	2.5	10
82	GLEs as a Warning Tool for Radiation Effects on Electronics and Systems: A New Alert System Based on Real-Time Neutron Monitors. IEEE Transactions on Nuclear Science, 2007, 54, 1082-1088.	2.0	10
83	Cosmic radiation influence on the physiological state of aviators. Natural Hazards, 2012, 61, 719-727.	3.4	10
84	Diurnal anisotropy of cosmic rays during intensive solar activity for the period 2001â€“2014. New Astronomy, 2016, 46, 78-84.	1.8	10
85	An Extended Study of the Precursory Signs of Forbush Decreases: New Findings over the Years 2008â€‰â€“â€‰2016. Solar Physics, 2019, 294, 1.	2.5	10
86	The effect of cosmic ray intensity variations and geomagnetic disturbances on the physiological state of aviators. Astrophysics and Space Sciences Transactions, 2011, 7, 373-377.	1.0	9
87	ASSESSING RADIATION EXPOSURE INSIDE THE EARTHâ€™S ATMOSPHERE. Radiation Protection Dosimetry, 2020, 190, 427-436.	0.8	9
88	Radiation Exposure in the Lower Atmosphere during Different Periods of Solar Activity. Atmosphere, 2022, 13, 166.	2.3	9
89	Human Physiological Parameters Related to Solar and Geomagnetic Disturbances: Data from Different Geographic Regions. Atmosphere, 2021, 12, 1613.	2.3	9
90	Estimation of Cosmic-Ray-Induced Atmospheric Ionization and Radiation at Commercial Aviation Flight Altitudes. Applied Sciences (Switzerland), 2022, 12, 5297.	2.5	9

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91	ALERT SYSTEM FOR GROUND LEVEL COSMIC-RAY ENHANCEMENTS PREDICTION AT THE ATHENS NEUTRON MONITOR NETWORK IN REAL-TIME. International Journal of Modern Physics A, 2005, 20, 6711-6713.	1.5	8
92	Space weather forecasting at the new Athens center: the recent extreme events of January 2005. IEEE Transactions on Nuclear Science, 2005, 52, 2307-2312.	2.0	8
93	Artificial Neural Network Approach of Cosmic Ray Primary Data Processing. Solar Physics, 2013, 282, 303-318.	2.5	8
94	Possible Estimation of the Solar Cycle Characteristic Parameters by the 10.7 cm Solar Radio Flux. Solar Physics, 2016, 291, 989-1002.	2.5	8
95	Study of the longitudinal expansion velocity of the substorm current wedge. Annales Geophysicae, 1998, 16, 1423-1433.	1.6	7
96	COSMIC RAY EVENTS RELATED TO SOLAR ACTIVITY RECORDED AT THE ATHENS NEUTRON MONITOR STATION FOR THE PERIOD 2000â€“2003. International Journal of Modern Physics A, 2005, 20, 6714-6716.	1.5	7
97	Solar proton enhancements in different energy channels and coronal mass ejections during the last solar cycle. Advances in Space Research, 2009, 43, 687-693.	2.6	7
98	Solar particle event analysis using the standard radiation environment monitors: applying the neutron monitor's experience. Astrophysics and Space Sciences Transactions, 2011, 7, 1-5.	1.0	7
99	Long-Term Cosmic Ray Variability and the CME-Index. Advances in Astronomy, 2012, 2012, 1-8.	1.1	7
100	Calculation of the cosmic ray induced ionization for the region of Athens. Journal of Physics: Conference Series, 2013, 409, 012232.	0.4	7
101	Unusual Cosmic Ray Variations During the Forbush Decreases of June 2015. Solar Physics, 2018, 293, 1.	2.5	7
102	On the link between atmospheric cloud parameters and cosmic rays. Journal of Atmospheric and Solar-Terrestrial Physics, 2019, 189, 98-106.	1.6	7
103	Preferred Bartels days of high speed solar wind streams: An update. Solar Physics, 1989, 122, 187-189.	2.5	6
104	Cosmic-ray long-term variations due to the solar activity for the 22nd solar cycle. Advances in Space Research, 1995, 16, 245-248.	2.6	6
105	Title is missing!. Solar Physics, 1999, 189, 199-216.	2.5	6
106	Prediction of basic elements of the forthcoming solar cycles 24 and 25 (years 2005â€“2027). AIP Conference Proceedings, 2006, , .	0.4	6
107	Worldwide Integration of Neutron Monitors. Eos, 2010, 91, 305-306.	0.1	6
108	The Updated Version of the A.Ne.Mo.S. GLE Alert System: The Case of the Ground-Level Enhancement GLE73 on 28 October 2021. Universe, 2022, 8, 378.	2.5	6

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109	Power-spectrum analysis of local geomagnetic disturbances and their relationship to cosmic-ray and aurora intensity. Earth, Moon and Planets, 1989, 45, 1-15.	0.6	5
110	A possible E-W asymmetry of the coronal emission line intensities and K-corona brightness. Astrophysics and Space Science, 1994, 218, 35-57.	1.4	5
111	Possible east side predominance of the optical emissions of the solar corona. New Astronomy, 1997, 2, 437-447.	1.8	5
112	An empirical model of the daily evolution of the coronal index. Solar Physics, 2003, 218, 63-78.	2.5	5
113	Statistical analysis of interplanetary coronal mass ejections and their geoeffectiveness during the solar cycles 23 and 24. Astrophysics and Space Science, 2019, 364, 1.	1.4	5
114	On reproduction of long-term cosmic-ray modulation as seen by neutron monitor stations. Astrophysics and Space Science, 1995, 232, 315-326.	1.4	4
115	Solar cycle and 27-day variations of the diurnal anisotropy of cosmic rays during the solar cycle 23. Astrophysics and Space Science, 2016, 361, 1.	1.4	4
116	Implications for preferred longitudes in the coronal optical intensities. Advances in Space Research, 1996, 17, 277-280.	2.6	3
117	Athens Neutron Monitor Data Processing Center â€“ ANMODAP Center. Advances in Space Research, 2009, 44, 1237-1246.	2.6	3
118	Space storm measurements of the July 2005 solar extreme events from the low corona to the Earth. Advances in Space Research, 2009, 43, 600-604.	2.6	3
119	A quantitative study of the 6NM-64 neutron monitor by using Geant4: 1. Detection efficiency for different particles. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 729, 877-887.	1.6	3
120	Recent Research applications at the Athens Neutron Monitor Station. Journal of Physics: Conference Series, 2015, 632, 012071.	0.4	3
121	The Solar Polar Field in the Cosmic-Ray Intensity Modulation. Journal of Physics: Conference Series, 2015, 632, 012074.	0.4	3
122	Spectral Analysis of Forbush Decreases Using a New Yield Function. Solar Physics, 2020, 295, 1.	2.5	3
123	Large Forbush Decreases and their Solar Sources: Features and Characteristics. Solar Physics, 2020, 295, 1.	2.5	3
124	Solar cycle variation of the ionization by cosmic rays in the atmosphere at the mid-latitude region of Athens. Astrophysics and Space Science, 2021, 366, 1.	1.4	3
125	Cosmic-ray variations related to solar, geomagnetic and interplanetary disturbances (23 March?7) Tj ETQq1 1 0.784314 rgBT /Overlock	1.4	2
126	Structure of the July 1982 event in relation to the magnetosphere's response. Astrophysics and Space Science, 1991, 180, 173-183.	1.4	2

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127	Energy dissipation during a small substorm. Annales Geophysicae, 1995, 13, 494-504.	1.6	2
128	Analysis of Changes of Cardiological Parameters at Middle Latitude Region in Relation to Geomagnetic Disturbances and Cosmic Ray Variations. , 2010, , .		2
129	Optimization of neutron monitor data correction algorithms. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 714, 38-47.	1.6	2
130	A new approximate coupling function: The case of Forbush decreases. New Astronomy, 2021, 82, 101453.	1.8	2
131	Improved Approach in the Coupling Function Between Primary and Ground Level Cosmic Ray Particles Based on Neutron Monitor Data. Solar Physics, 2021, 296, 1.	2.5	2
132	Precursory Signs of Large Forbush Decreases. Solar Physics, 2021, 296, 1.	2.5	2
133	Precursory Signals of Forbush Decreases Not Connected with Shock Waves. Solar Physics, 2022, 297, 1.	2.5	2
134	Mechanisms and time-scales of the magnetospheric response to the interplanetary magnetic field changes during the 8 May 1986 substorm. Journal of Atmospheric and Solar-Terrestrial Physics, 1993, 55, 1459-1467.	0.9	1
135	Long-term Cosmic-ray Modulation during Solar Cycle 23. AIP Conference Proceedings, 2006, , .	0.4	1
136	Real time processing of neutron monitor data using the edge editor algorithm. Journal of Space Weather and Space Climate, 2012, 2, A15.	3.3	1
137	Magnetospheric cut-off rigidity variations recorded by neutron monitors in the events from 2001 to 2010. Journal of Physics: Conference Series, 2013, 409, 012201.	0.4	1
138	Statistical analysis on the current capability to predict the Ap Geomagnetic Index. New Astronomy, 2021, 86, 101570.	1.8	1
139	A periodical analysis of the cosmic-ray diffusion coefficient and the high-speed solar-wind streams. Earth, Moon and Planets, 1988, 43, 165-179.	0.6	0
140	Unequal optical emissions between the east and the west part of the solar corona. Advances in Space Research, 1996, 17, 273-276.	2.6	0
141	A Study for an Unmanned Aerial Vehicle carrying a radiation spectrometer networked to the new Athens Center active in Space Weather Events forecasting. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	0
142	The new Athens Center applied to Space Weather Forecasting. AIP Conference Proceedings, 2006, , .	0.4	0
143	Anomalous Forbush effects from sources far from Sun center. Proceedings of the International Astronomical Union, 2008, 4, 451-456.	0.0	0
144	Precursors of Forbush decreases connected to western solar sources and geomagnetic storms. Journal of Physics: Conference Series, 2013, 409, 012182.	0.4	0

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145	Modulation Effectiveness of Coronal Mass Ejections with Different Structure of the Magnetic Field. Bulletin of the Russian Academy of Sciences: Physics, 2021, 85, 1183-1186.	0.6	0
146	First Application of a Theoretically Derived Coupling Function in Cosmic-Ray Intensity for the Case of the 10 September 2017 Ground-Level Enhancement (GLE 72). Solar Physics, 2022, 297, .	2.5	0