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	Radiation Exposure in the Lower Atmosphere during Different Periods of Solar Activity. Atmosphere, 2022, 13, 166.	2.3	9
2	Precursory Signals of Forbush Decreases Not Connected with Shock Waves. Solar Physics, 2022, 297, 1.	2.5	2
3	Estimation of Cosmic-Ray-Induced Atmospheric Ionization and Radiation at Commercial Aviation Flight Altitudes. Applied Sciences (Switzerland), 2022, 12, 5297.	2.5	9
4	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
5	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
6	A new approximate coupling function: The case of Forbush decreases. New Astronomy, 2021, 82, 101453.	1.8	2
7	World grid of cosmic ray vertical cut-off rigidity for the last decade. Advances in Space Research, 2021, 67, 2231-2240.	2.6	17
8	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
9	Precursory Signs of Large Forbush Decreases. Solar Physics, 2021, 296, 1.	2.5	2
10	Statistical analysis on the current capability to predict the Ap Geomagnetic Index. New Astronomy, 2021, 86, 101570.	1.8	1
11	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
12	The sun as a significant agent provoking earthquakes. European Physical Journal: Special Topics, 2021, 230, 287-333.	2.6	17
13	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
14	Human Physiological Parameters Related to Solar and Geomagnetic Disturbances: Data from Different Geographic Regions. Atmosphere, 2021, 12, 1613.	2.3	9
15	ASSESSING RADIATION EXPOSURE INSIDE THE EARTHâ€™S ATMOSPHERE. Radiation Protection Dosimetry, 2020, 190, 427-436.	0.8	9
16	Spectral Analysis of Forbush Decreases Using a New Yield Function. Solar Physics, 2020, 295, 1.	2.5	3
17	Large Forbush Decreases and their Solar Sources: Features and Characteristics. Solar Physics, 2020, 295, 1.	2.5	3
18	Interplanetary Coronal Mass Ejections as the Driver of Non-recurrent Forbush Decreases. Astrophysical Journal, 2020, 890, 101.	4.5	22

#	Article	IF	Citations
19	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
20	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
21	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
22	On the link between atmospheric cloud parameters and cosmic rays. Journal of Atmospheric and Solar-Terrestrial Physics, 2019, 189, 98-106.	1.6	7
23	Onset Time of the GLE 72 Observed at Neutron Monitors and its Relation to Electromagnetic Emissions. Solar Physics, 2019, 294, 1.	2.5	13
24	Galactic cosmic ray spectral index: the case of Forbush decreases of March 2012. Astrophysics and Space Science, 2018, 363, 1.	1.4	18
25	High-Speed Solar Wind Streams and Geomagnetic Storms During Solar Cycle 24. Solar Physics, 2018, 293, 1.	2.5	26
26	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
27	The Global Survey Method Applied to Ground-level Cosmic Ray Measurements. Solar Physics, 2018, 293, 1.	2.5	54
28	Unusual Cosmic Ray Variations During the Forbush Decreases of June 2015. Solar Physics, 2018, 293, 1.	2.5	7
29	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
30	Impact of space weather on human heart rate during the years 2011â€“2013. Astrophysics and Space Science, 2017, 362, 1.	1.4	15
31	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
32	Effective Acceleration Model for the Arrival Time of Interplanetary Shocks driven by Coronal Mass Ejections. Solar Physics, 2017, 292, 1.	2.5	32
33	Solar energetic particle interactions with the Venusian atmosphere. Annales Geophysicae, 2016, 34, 595-608.	1.6	19
34	Latitudinal and longitudinal dependence of the cosmic ray diurnal anisotropy during 2001â€“2014. Annales Geophysicae, 2016, 34, 1053-1068.	1.6	21
35	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
36	Diurnal anisotropy of cosmic rays during intensive solar activity for the period 2001â€“2014. New Astronomy, 2016, 46, 78-84.	1.8	10

#	Article	IF	Citations
37	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
38	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
39	Recent Research applications at the Athens Neutron Monitor Station. Journal of Physics: Conference Series, 2015, 632, 012071.	0.4	3
40	The Solar Polar Field in the Cosmic-Ray Intensity Modulation. Journal of Physics: Conference Series, 2015, 632, 012074.	0.4	3
41	Galactic Cosmic Ray Density Variations in Magnetic Clouds. Solar Physics, 2015, 290, 1429-1444.	2.5	49
42	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
43	Geant4 software application for the simulation of cosmic ray showers in the Earthâ€™s atmosphere. New Astronomy, 2014, 33, 26-37.	1.8	31
44	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
45	A Complete Catalogue of High-Speed Solar Wind Streams during Solar Cycle 23. Solar Physics, 2014, 289, 995-1012.	2.5	34
46	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
47	Coronal Mass Ejections and Non-recurrent Forbush Decreases. Solar Physics, 2014, 289, 3949-3960.	2.5	74
48	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
49	Forbush Decreases Associated with Western Solar Sources and Geomagnetic Storms: A Study on Precursors. Solar Physics, 2013, 283, 557-563.	2.5	17
50	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
51	Artificial Neural Network Approach of Cosmic Ray Primary Data Processing. Solar Physics, 2013, 282, 303-318.	2.5	8
52	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
53	Online application for the barometric coefficient calculation of the NMDB stations. New Astronomy, 2013, 19, 10-18.	1.8	13
54	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

#	Article	IF	Citations
55	Calculation of the cosmic ray induced ionization for the region of Athens. Journal of Physics: Conference Series, 2013, 409, 012232.	0.4	7
56	Precursors of Forbush decreases connected to western solar sources and geomagnetic storms. Journal of Physics: Conference Series, 2013, 409, 012182.	0.4	0
57	The first Forbush decrease of solar cycle 24. Journal of Physics: Conference Series, 2013, 409, 012202.	0.4	11
58	Long-Term Cosmic Ray Variability and the CME-Index. Advances in Astronomy, 2012, 2012, 1-8.	1.1	7
59	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
60	Space weather hazards and their impact on human cardio-health state parameters on Earth. Natural Hazards, 2012, 64, 1447-1459.	3.4	30
61	The Asymptotic Longitudinal Cosmic Ray Intensity Distribution as a Precursor of Forbush Decreases. Solar Physics, 2012, 280, 641-650.	2.5	18
62	Galactic Cosmic Ray Modulation and the Last Solar Minimum. Solar Physics, 2012, 280, 255-271.	2.5	35
63	Precursor Effects in Different Cases of Forbush Decreases. Solar Physics, 2012, 276, 337-350.	2.5	35
64	Cosmic radiation influence on the physiological state of aviators. Natural Hazards, 2012, 61, 719-727.	3.4	10
65	Effect of geomagnetic disturbances on physiological parameters: An investigation on aviators. Advances in Space Research, 2011, 48, 1545-1550.	2.6	24
66	Intense Ground-Level Enhancements of Solar Cosmic Rays During the Last Solar Cycles. Solar Physics, 2011, 269, 155-168.	2.5	29
67	Applications and usage of the real-time Neutron Monitor Database. Advances in Space Research, 2011, 47, 2210-2222.	2.6	105
68	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
69	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
70	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
71	Analysis of Changes of Cardiological Parameters at Middle Latitude Region in Relation to Geomagnetic Disturbances and Cosmic Ray Variations. , 2010, , .		2
72	A New Version of the Neutron Monitor Based Anisotropic GLE Model: Application to GLE60. Solar Physics, 2010, 264, 239-254.	2.5	16

#	Article	IF	Citations
73	On Mid-Term Periodicities in Cosmic Rays. Solar Physics, 2010, 266, 173-180.	2.5	48
74	On the Analysis of the Complex Forbush Decreases ofÂJanuaryÂ2005. Solar Physics, 2010, 266, 181-193.	2.5	35
75	Implementation of the ground level enhancement alert software at NMDB database. New Astronomy, 2010, 15, 744-748.	1.8	19
76	Worldwide Integration of Neutron Monitors. Eos, 2010, 91, 305-306.	0.1	6
77	The burst of solar and geomagnetic activity in Augustâ€"September 2005. Annales Geophysicae, 2009, 27, 1019-1026.	1.6	20
78	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
79	Athens Neutron Monitor Data Processing Center â€" ANMODAP Center. Advances in Space Research, 2009, 44, 1237-1246.	2.6	3
80	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
81	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
82	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
83	Neutron monitor asymptotic directions of viewing during the event of 13 December 2006. Advances in Space Research, 2009, 43, 518-522.	2.6	12
84	Real-time GLE alert in the ANMODAP Center for December 13, 2006. Advances in Space Research, 2009, 43, 728-734.	2.6	19
85	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
86	Anomalous Forbush effects from sources far from Sun center. Proceedings of the International Astronomical Union, 2008, 4, 451-456.	0.0	0
87	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
88	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
89	Modeling ground level enhancements: Event of 20 January 2005. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	79
90	Cosmic-Ray Modulation: An Empirical Relation with Solar and Heliospheric Parameters. Solar Physics, 2007, 245, 369-390.	2.5	44

#	Article	IF	Citations
91	Peak-Size Distributions of Proton Fluxes and Associated Soft X-Ray Flares. Solar Physics, 2007, 246, 457-470.	2.5	42
92	Space weather prediction by cosmic rays. Advances in Space Research, 2006, 37, 1141-1147.	2.6	26
93	Prediction of basic elements of the forthcoming solar cycles 24 and 25 (years 2005â€"2027). AIP Conference Proceedings, 2006, , .	0.4	6
94	Long-term Cosmic-ray Modulation during Solar Cycle 23. AIP Conference Proceedings, 2006, , .	0.4	1
95	The new Athens Center applied to Space Weather Forecasting. AIP Conference Proceedings, 2006, , .	0.4	0
96	Unexpected burst of solar activity recorded by neutron monitors during Octoberâ€"November 2003. Advances in Space Research, 2005, 35, 691-696.	2.6	19
97	A study of the ground level enhancement of 23 February 1956. Advances in Space Research, 2005, 35, 697-701.	2.6	23
98	Coronal index as a solar activity index applied to space weather. Advances in Space Research, 2005, 35, 410-415.	2.6	16
99	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
100	Solar cosmic rays during the extremely high ground level enhancement on 23 February 1956. Annales Geophysicae, 2005, 23, 2281-2291.	1.6	26
101	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
102	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
103	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
104	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
105	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
106	Magnetospheric effects in cosmic rays during the unique magnetic storm on November 2003. Journal of Geophysical Research, 2005, 110, .	3.3	101
107	Statistical analysis of solar proton events. Annales Geophysicae, 2004, 22, 2255-2271.	1.6	53
108	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

#	Article	IF	Citations
109	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
110	Neutron Monitor Network in Real Time and Space Weather. , 2004, , 301-317.		18
111	An empirical model of the daily evolution of the coronal index. Solar Physics, 2003, 218, 63-78.	2.5	5
112	Short-term variations of cosmic-ray intensity and flare related data in 1981â€"1983. New Astronomy, 2003, 8, 777-794.	1.8	29
113	Low- and high-frequency spectral behavior of cosmic-ray intensity for the period 1953â€"1996. Annales Geophysicae, 2003, 21, 1681-1689.	1.6	35
114	Frequency distributions of solar proton events. Journal of Atmospheric and Solar-Terrestrial Physics, 2002, 64, 489-496.	1.6	17
115	Long-term modulation of the coronal index of solar activity. Solar Physics, 2002, 206, 401-414.	2.5	16
116	Positive and negative ionospheric disturbances at middle latitudes during geomagnetic storms. Geophysical Research Letters, 2000, 27, 3579-3582.	4.0	59
117	Title is missing!. Solar Physics, 1999, 189, 199-216.	2.5	6
118	Fast Plasma Streams Recorded Near the Earth During 1985â€"1996. Solar Physics, 1998, 183, 181-200.	2.5	34
119	Study of the longitudinal expansion velocity of the substorm current wedge. Annales Geophysicae, 1998, 16, 1423-1433.	1.6	7
120	Hale-cycle effects in cosmic-ray intensity during the last four cycles. Astrophysics and Space Science, 1997, 246, 7-14.	1.4	17
121	Possible east side predominance of the optical emissions of the solar corona. New Astronomy, 1997, 2, 437-447.	1.8	5
122	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
123	Implications for preferred longitudes in the coronal optical intensities. Advances in Space Research, 1996, 17, 277-280.	2.6	3
124	Energy dissipation during a small substorm. Annales Geophysicae, 1995, 13, 494-504.	1.6	2
125	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
126	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

#	Article	IF	Citations
127	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
128	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
129	Structure of the July 1982 event in relation to the magnetosphere's response. Astrophysics and Space Science, 1991, 180, 173-183.	1.4	2
130	Coronal line intensity as an integrated index of solar activity. Astrophysics and Space Science, 1990, 164, 117-130.	1.4	13
131	Simulation of long-term cosmic-ray intensity variation. Solar Physics, 1990, 125, 409-414.	2.5	14
132	Time-evolution of cosmic-ray intensity modulation. Solar Physics, 1989, 122, 345-363.	2.5	20
133	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
134	Application of diffusion ? Convection model to diurnal anisotropy data. Earth, Moon and Planets, 1989, 47, 61-72.	0.6	15
135	Preferred Bartels days of high speed solar wind streams: An update. Solar Physics, 1989, 122, 187-189.	2.5	6
136	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
137	Solar-cycle phenomena in cosmic-ray intensity: Differences between even and odd cycles. Earth, Moon and Planets, 1988, 42, 233-244.	0.6	16
138	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
139	Asymmetric variations of the coronal green line intensity. Solar Physics, 1988, 115, 367-384.	2.5	25
140	An empirical model for the 11-year cosmic-ray modulation. Earth, Moon and Planets, 1987, 37, 79-88.	0.6	11
141	Time-lag of cosmic-ray intensity. Astrophysics and Space Science, 1984, 106, 61-71.	1.4	34
142	Cosmic-ray variations related to solar, geomagnetic and interplanetary disturbances (23 March?7) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.4	2
143	The evolution and the secondary maximum of the green line intensity. Solar Physics, 1982, 76, 181-190.	2.5	10
144	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

#	Article	IF	Citations
145	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
146	Large amplitude wave-trains of cosmic-ray intensity. Astrophysics and Space Science, 1980, 71, 101-110.	1.4	12