Gerhard Diendorfer

List of Publications by Year
in descending order

100	2,561	236833	214721
papers	citations	25 h-index	47 g-index

106	106	106	1125
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Frontal Thunderstorm With Several Multiâ€Cell Lines Found to Produce Energetic Preliminary Breakdown. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	1
2	On the Use of Benfordâ€™s Law to Assess the Quality of the Data Provided by Lightning Locating Systems. Atmosphere, 2022, 13, 552.	1.0	3
3	Continental thunderstorm ground enhancement observed at an exceptionally low altitude. Atmospheric Chemistry and Physics, 2022, 22, 7959-7973.	1.9	3
4	First Observations of Elves and Their Causative Very Strong Lightning Discharges in an Unusual Smallâ€Scale Continental Springâ€Time Thunderstorm. Journal of Geophysical Research D: Atmospheres, 2021, 126, .	1.2	6
5	LMA observations of upward lightning flashes at the SÃntis Tower initiated by nearby lightning activity. Electric Power Systems Research, 2020, 181, 106067.	2.1	9
6	Significant enhancements of secondary cosmic rays and electric field at the high mountain peak of LomnickÃ½ ÅtÃt in High Tatras during thunderstorms. Earth, Planets and Space, 2020, 72, .	0.9	32
7	Polarity of Upward Lightning based on Currents Measured at the Gaisberg Tower. , 2019, , .		0
8	Characteristics of Currents in Upward Lightning Flashes Initiated From the Gaisberg Tower. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 705-718.	1.4	18
9	A Study of a Large Bipolar Lightning Event Observed at the SÃntis Tower. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 796-806.	1.4	7
10	Analysis of a bipolar upward lightning flash based on simultaneous records of currents and 380-km distant electric fields. Electric Power Systems Research, 2019, 174, 105845.	2.1	6
11	LMA Observation of Upward Bipolar Lightning Flash at the SÃntis Tower. , 2019, , .		2
12	The Propagation Effects of Lightning Electromagnetic Fields Over Mountainous Terrain in the Earthâ€Ionosphere Waveguide. Journal of Geophysical Research D: Atmospheres, 2019, 124, 14198-14219.	1.2	10
13	On the Impact of Meteorological Conditions on the Initiation of Upward Lightning Flashes from Tall Structures. , 2018, , .		4
14	Current and Electric Field Changes Associated with the Initial Stage of Upward Lightning. , 2018, , .		3
15	Measurement of lightning currents on high structures and wind turbines. , 2018, , .		6
16	Extremely high lightning peak currents. , 2018, , .		2
17	Assessment of ball lightning cases by correlated LLS data. , 2018, , .		4
18	On the Classification of Self-Triggered versus OtherTriggered Lightning Flashes. , 2018, , .		2

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19	An Analysis of the Distribution of Inter-Flash Time Intervals in the Area of the SÃntis Tower. , 2018, , .		1
20	X-ray Observations at Gaisberg Tower. Atmosphere, 2018, 9, 20.	1.0	7
21	Analysis of lightning-ionosphere interaction using simultaneous records of source current and 380Âkm distant electric field. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 159, 48-56.	0.6	20
22	Merging of current generation and current dissipation lightning return stroke models. Electric Power Systems Research, 2017, 153, 10-18.	2.1	2
23	Location Accuracy Evaluation of ToAâ€Based Lightning Location Systems Over Mountainous Terrain. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,760.	1.2	32
24	Simultaneous records of current and 380-km distant electric field of a bipolar lightning flash. , 2017, , .		0
25	Close and distant electric fields due to lightning attaching to the Gaisberg Tower. , 2017, , .		0
26	Spatio-temporal modelling of lightning climatologies for complex terrain. Natural Hazards and Earth System Sciences, 2017, 17, 305-314.	1.5	11
27	Workshop FR-AM-4: Measurement techniques for lightning currents indirect measurement of lightning peak currents using far fields and LLSs. , 2017, , .		1
28	The European lightning location system EUCLID â€“ PartÂ2: Observations. Natural Hazards and Earth System Sciences, 2016, 16, 607-616.	1.5	92
29	The European lightning location system EUCLID â€“ PartÂ1: Performance analysis and validation. Natural Hazards and Earth System Sciences, 2016, 16, 595-605.	1.5	147
30	Evaluation of the performance characteristics of the European Lightning Detection Network EUCLID in the Alps region for upward negative flashes using direct measurements at the instrumented SÃntis Tower. Journal of Geophysical Research D: Atmospheres, 2016, 121, 595-606.	1.2	37
31	Analysis of lightning electromagnetic field propagation in mountainous terrain and its effects on ToAâ€based lightning location systems. Journal of Geophysical Research D: Atmospheres, 2016, 121, 895-911.	1.2	25
32	Implementation and performance analysis of the lightning potential index as a forecasting tool. , 2016, , .		6
33	Progress on lightning research and protection technologies. Electric Power Systems Research, 2016, 139, 1.	2.1	1
34	Correlation vs. causality in other-triggered upward lightning in tower flashes. , 2016, , .		2
35	Initial investigation of influence of wind farms to lightning events. , 2016, , .		7
36	Some field parameters of return strokes in upward lightning from tall objects. , 2016, , .		1

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37	An analysis of the initiation of upward flashes from tall towers with particular reference to Gaisberg and SÃntis Towers. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 136, 46-51.	0.6	21
38	A study of different modes of charge transfer to ground in upward lightning. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 125-126, 38-49.	0.6	37
39	On the risk of upward lightning initiated from wind turbines. , 2015, , .		2
40	Lightning caused outages in the Austrian Power Grid transmission line network. , 2014, , .		7
41	Analysis of lightning events preceding upward flashes from Gaisberg and Säntis Towers. , 2014, , .		8
42	European cloud-to-ground lightning characteristics. , 2014, , .		8
43	On the Location of Lightning Discharges Using Time Reversal of Electromagnetic Fields. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 149-158.	1.4	58
44	A new approach to calculate electric fields and charge density distribution when lightning strikes a tall object. Electric Power Systems Research, 2014, 113, 15-24.	2.1	1
45	The influence of meteorological conditions on upward lightning initiation at the Gaisberg Tower. , 2014, , .		11
46	On the relation between lightning flash density and terrain elevation. , 2013, , .		8
47	CIGRE technical brochure on lightning parameters for engineering applications. , 2013, , .		30
48	Validation of detection of positive flashes by the austrian lightning location system ALDIS. , 2013, , .		6
49	Calculation of electromagnetic fields in free space when lightning strikes a tall object. , 2013, , .		1
50	Analysis of lightning-induced forest fires in Austria. Theoretical and Applied Climatology, 2013, 111, 183-193.	1.3	55
51	On the proportion of upward flashes to lightning research towers. Atmospheric Research, 2013, 129-130, 110-116.	1.8	21
52	Infrasound pulses from lightning and electrostatic field changes: Observation and discussion. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,653.	1.2	14
53	Distribution of charge along the tower and lightning channel when lightning strikes a tall tower. , 2012, , .		7
54	Lightning Return Strokes to Tall Towers: Ability of Engineering and Electromagnetic Models to Reproduce Nearby Electromagnetic Fields. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 889-897.	1.4	16

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55	On the use of the Time Reversal of Electromagnetic fields to locate lightning discharges. , 2012, , .		6
56	Characteristics of upward positive lightning flashes initiated from the Gaisberg Tower. Journal of Geophysical Research, 2012, 117, .	3.3	47
57	Measured current and close electric field changes associated with the initiation of upward lightning from a tall tower. Journal of Geophysical Research, 2012, 117, .	3.3	57
58	A system for the measurements of lightning currents at the SÃntis Tower. Electric Power Systems Research, 2012, 82, 34-43.	2.1	59
59	Preliminary comparison of data from the Säntis Tower and the EUCLID lightning location system. , 2011, , .		10
60	Lightning initiated from tall structures — A review. , 2011, , .		5
61	Comparative lightning current measurements on Gaisberg Tower. , 2011, , .		4
62	A new method for the estimation of the number of upward flashes from tall structures. , 2011, , .		7
63	Close electric field changes associated with upward-initiated lightning at the Gaisberg Tower. , 2011, , .		2
64	Characteristics of upward bipolar lightning flashes observed at the Gaisberg Tower. Journal of Geophysical Research, 2011, 116, .	3.3	36
65	Review of upward positive and bipolar lightning flashes at the Gaisberg Tower. , 2011, , .		2
66	Lightning return strokes to tall towers: Ability of engineering models to reproduce nearby electromagnetic fields. , 2011, , .		0
67	Mixed mode of charge transfer to ground for initial continuous current pulses in upward lightning. , 2011, , .		7
68	On the proportion of upward flashes to lightning research towers. , 2011, , .		3
69	An investigation of whistler intensities above thunderstorms. , 2011, , .		0
70	Evaluation of 45 negative flashes based on E-field measurements, video data and lightning location data in Austria. , 2010, , .		3
71	Vertical and radial electric fields from leaders and return strokes associated with lightning strikes to the Gaisberg Tower. , 2010, , .		0
72	Benford's law and lightning data. , 2010, , .		1

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73	Upward bipolar lightning flashes observed at the Gaisberg Tower. , 2010, , .		1
74	Continuing current in tower-initiated lightning. , 2010, , .		0
75	Benford's Law and Its Application to Lightning Data. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 956-961.	1.4	5
76	On estimation of the effective height of towers on mountaintops in lightning incidence studies. Journal of Electrostatics, 2010, 68, 415-418.	1.0	34
77	Some Parameters of Correlated Current and Radiated Field Pulses from Lightning to the Gaisberg Tower. IEEJ Transactions on Electrical and Electronic Engineering, 2010, 5, 8-13.	0.8	35
78	Whistler intensities above thunderstorms. Annales Geophysicae, 2010, 28, 37-46.	0.6	34
79	Simultaneous current and electric field observations of upward negative leaders initiated from the Gaisberg Tower. , 2010, , .		1
80	Lightning electromagnetic fields at very close distances associated with lightning strikes to the Gaisberg tower. Journal of Geophysical Research, 2010, 115, .	3.3	23
81	Some Parameters of Negative Upward-Initiated Lightning to the Gaisberg Tower (2000â€“2007). IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 443-452.	1.4	141
82	Evaluation of thunderstorm indices from ECMWF analyses, lightning data and severe storm reports. Atmospheric Research, 2009, 93, 381-396.	1.8	98
83	A lightning strike to the head causing a visual cortex defect with simple and complex visual hallucinations. BMJ Case Reports, 2009, 2009, bcr0620092008-bcr0620092008.	0.2	2
84	ALDIS Austrian Lightning Detection and Information System 1992â€“2008. Elektrotechnik Und Informationstechnik, 2008, 125, 209.	0.7	0
85	Currents in buried grounding strips connected to communication tower legs during lightning strikes. IEEE Transactions on Dielectrics and Electrical Insulation, 2008, 15, 1153-1161.	1.8	5
86	Assigning the causative lightning to the whistlers observed on satellites. Annales Geophysicae, 2006, 24, 2921-2929.	0.6	25
87	Zehn Jahre EMV gesetzlich verpflichtend. Elektrotechnik Und Informationstechnik, 2006, 123, 1-1.	0.7	0
88	A lightning strike to the head causing a visual cortex defect with simple and complex visual hallucinations. Journal of Neurology, Neurosurgery and Psychiatry, 2006, 78, 423-426.	0.9	18
89	Initial stage in lightning initiated from tall objects and in rocket-triggered lightning. Journal of Geophysical Research, 2005, 110, .	3.3	115
90	Cloud-to-ground lightning in Austria: A 10-year study using data from a lightning location system. Journal of Geophysical Research, 2005, 110, .	3.3	160

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91	Evaluation of lightning location data employing measurements of direct strikes to a radio tower. Elektrotechnik Und Informationstechnik, 2002, 119, 422-427.	0.7	31
92	Long term experience on lightning acquisition in Italy and Austria and data application to the improvement of lightning performance. Elektrotechnik Und Informationstechnik, 2002, 119, 428-433.	0.7	5
93	Thunderstorms, lightning and solar activityâ€"Middle Europe. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 1705-1713.	0.6	56
94	Lightning Characteristics as a Function of Altitude Evaluated from Lightning Location Network Data. , 1999, , .		12
95	Lightning characteristics based on data from the Austrian lightning locating system. IEEE Transactions on Electromagnetic Compatibility, 1998, 40, 452-464.	1.4	64
96	Extension of the Diendorferâ€Uman lightning return stroke model to the case of a variable upward return stroke speed and a variable downward discharge current speed. Journal of Geophysical Research, 1991, 96, 17143-17150.	3.3	34
97	Induced voltage on an overhead line due to nearby lightning. IEEE Transactions on Electromagnetic Compatibility, 1990, 32, 292-299.	1.4	70
98	Lightning return stroke current models with specified channelâ€base current: A review and comparison. Journal of Geophysical Research, 1990, 95, 20395-20408.	3.3	304
99	An improved return stroke model with specified channelâ€base current. Journal of Geophysical Research, 1990, 95, 13621-13644.	3.3	191
100	Ground flash density and lightning exposure of power transmission lines. , 0, , .		9