Ari Viljanen

List of Publications by Year in descending order

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37 papers	2,426 citations	201575 27 h-index	330025 37 g-index
46 all docs	46 docs citations	46 times ranked	1141 citing authors

#	Article	IF	Citations
1	Spatio-temporal development of large-scale auroral electrojet currents relative to substorm onsets. Annales Geophysicae, 2022, 40, 107-119.	0.6	1
2	Modeling the Geomagnetic Response to the September 2017 Space Weather Event Over Fennoscandia Using the Space Weather Modeling Framework: Studying the Impacts of Spatial Resolution. Space Weather, 2021, 19, e2020SW002683.	1.3	13
3	Auroral Omega Bands are a Significant Cause of Large Geomagnetically Induced Currents. Geophysical Research Letters, 2020, 47, e2019GL086677.	1.5	43
4	On the Regional Variability of dB/dt and Its Significance to GIC. Space Weather, 2020, 18, e2020SW002497.	1.3	35
5	Induced currents due to 3D ground conductivity play a major role in the interpretation of geomagnetic variations. Annales Geophysicae, 2020, 38, 983-998.	0.6	19
6	The GIC and Geomagnetic Response Over Fennoscandia to the 7â€“8 September 2017 Geomagnetic Storm. Space Weather, 2019, 17, 989-1010.	1.3	65
7	Geomagnetically induced currents: Science, engineering, and applications readiness. Space Weather, 2017, 15, 828-856.	1.3	149
8	Influence of spatial variations of the geoelectric field on geomagnetically induced currents. Journal of Space Weather and Space Climate, 2017, 7, A22.	1.1	12
9	Forecasting auroras from regional and global magnetic field measurements. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 253-262.	0.6	2
10	Extreme value analysis of the time derivative of the horizontal magnetic field and computed electric field. Annales Geophysicae, 2016, 34, 485-491.	0.6	13
11	Characteristics of extreme geoelectric fields and their possible causes: Localized peak enhancements. Geophysical Research Letters, 2015, 42, 6916-6921.	1.5	80
12	Solar wind driven empirical forecast models of the time derivative of the ground magnetic field. Journal of Space Weather and Space Climate, 2015, 5, A7.	1.1	34
13	Regional-scale high-latitude extreme geoelectric fields pertaining to geomagnetically induced currents. Earth, Planets and Space, 2015, 67, .	0.9	60
14	Geomagnetically induced currents in Norway: the northernmost high-voltage power grid in the world. Journal of Space Weather and Space Climate, 2014, 4, A10.	1.1	38
15	Continental scale modelling of geomagnetically induced currents. Journal of Space Weather and Space Climate, 2012, 2, A17.	1.1	60
16	Auroral electrojets during deep solar minimum at the end of solar cycle 23. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	29
17	Application and validation of the spherical elementary currents systems technique for deriving ionospheric equivalent currents with the North American and Greenland ground magnetometer arrays. Journal of Geophysical Research, 2011, 116, .	3.3	107
18	Space weather events in July 1982 and October 2003 and the effects of geomagnetically induced currents on Swedish technical systems. Annales Geophysicae, 2009, 27, 1775-1787.	0.6	108

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19	A model for estimating the relation between the Hall to Pedersen conductance ratio and ground magnetic data derived from CHAMP satellite statistics. Annales Geophysicae, 2007, 25, 721-736.	0.6	21
20	Estimation of geomagnetically induced current levels from different input data. Space Weather, 2006, 4, n/a-n/a.	1.3	55
21	Recordings of geomagnetically induced currents and a nowcasting service of the Finnish natural gas pipeline system. Space Weather, 2006, 4, n/a-n/a.	1.3	92
22	One-dimensional spherical elementary current systems and their use for determining ionospheric currents from satellite measurements. Earth, Planets and Space, 2006, 58, 667-678.	0.9	28
23	Relation between substorm characteristics and rapid temporal variations of the ground magnetic field. Annales Geophysicae, 2006, 24, 725-733.	0.6	76
24	Geomagnetic storm of 29-31 October 2003: Geomagnetically induced currents and their relation to problems in the Swedish high-voltage power transmission system. Space Weather, 2005, 3, n/a-n/a.	1.3	243
25	Fast computation of the geoelectric field using the method of elementary current systems and planar Earth models. Annales Geophysicae, 2004, 22, 101-113.	0.6	95
26	Quiet-time magnetic variations at high latitude observatories. Earth, Planets and Space, 2004, 56, 47-65.	0.9	13
27	Ionospheric equivalent current distributions determined with the method of spherical elementary current systems. Journal of Geophysical Research, 2003, 108, .	3.3	116
28	Separation of the geomagnetic variation field on the ground into external and internal parts using the spherical elementary current system method. Earth, Planets and Space, 2003, 55, 117-129.	0.9	38
29	One-dimensional upward continuation of the ground magnetic field disturbance using spherical elementary current systems. Earth, Planets and Space, 2003, 55, 613-625.	0.9	42
30	At substorm onset, 40% of AL comes from underground. Journal of Geophysical Research, 2001, 106, 13119-13134.	3.3	70
31	Time derivative of the horizontal geomagnetic field as an activity indicator. Annales Geophysicae, 2001, 19, 1107-1118.	0.6	147
32	Modelling of space weather effects on pipelines. Journal of Applied Geophysics, 2001, 48, 233-256.	0.9	74
33	Recordings and occurrence of geomagnetically induced currents in the Finnish natural gas pipeline network. Journal of Applied Geophysics, 2001, 48, 219-231.	0.9	87
34	Ionospheric disturbance magnetic field continuation from the ground to the ionosphere using spherical elementary current systems. Earth, Planets and Space, 1999, 51, 431-440.	0.9	251
35	The Relation Between Geomagnetic Variations and Their Time Derivatives and Implications for Estimation of Induction Risks. Geophysical Research Letters, 1997, 24, 631-634.	1.5	78
36	On induction effects at EISCAT and IMAGE magnetometer stations. Geophysical Journal International, 1995, 121, 893-906.	1.0	28

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37	Application of conformal mapping to 2-D conductivity structures with non-uniform primary sources. Geophysical Journal International, 1991, 105, 185-190.	1.0	2