Vincent Lesur

List of Publications by Year
in descending order

96	5,093	147726 31	88593 70
papers	citations	h-index	g-index

104	104	104	4630
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	International Geomagnetic Reference Field: the 12th generation. Earth, Planets and Space, 2015, 67, .	0.9	1,015
2	International Geomagnetic Reference Field: the eleventh generation. Geophysical Journal International, 2010, 183, 1216-1230.	1.0	907
3	International Geomagnetic Reference Field: the thirteenth generation. Earth, Planets and Space, 2021, 73, .	0.9	319
4	The Swarm Satellite Constellation Application and Research Facility (SCARF) and Swarm data products. Earth, Planets and Space, 2013, 65, 1189-1200.	0.9	222
5	GRIMM: the GFZ Reference Internal Magnetic Model based on vector satellite and observatory data. Geophysical Journal International, 2008, 173, 382-394.	1.0	157
6	A spherical harmonic model of the lithospheric magnetic field of Mars. Journal of Geophysical Research E: Planets, 2014, 119, 1162-1188.	1.5	157
7	The 10th-Generation International Geomagnetic Reference Field. Geophysical Journal International, 2005, 161, 561-565.	1.0	104
8	The 10th generation international geomagnetic reference field. Physics of the Earth and Planetary Interiors, 2005, 151, 320-322.	0.7	100
9	Building the second version of the World Digital Magnetic Anomaly Map (WDMAM). Earth, Planets and Space, 2016, 68, .	0.9	94
10	The second generation of the GFZ Reference Internal Magnetic Model: GRIMM-2. Earth, Planets and Space, 2010, 62, 765-773.	0.9	92
11	An improved geomagnetic data selection algorithm for global geomagnetic field modelling. Geophysical Journal International, 2007, 169, 951-963.	1.0	79
12	The Swarm Initial Field Model for the 2014 geomagnetic field. Geophysical Research Letters, 2015, 42, 1092-1098.	1.5	77
13	Grid Euler deconvolution with constraints for 2D structures. Geophysics, 2004, 69, 489-496.	1.4	71
14	Evaluation of candidate geomagnetic field models for IGRF-12. Earth, Planets and Space, 2015, 67, .	0.9	66
15	The Swarm End-to-End mission simulator study: A demonstration of separating the various contributions to Earthâ€™s magnetic field using synthetic data. Earth, Planets and Space, 2006, 58, 359-370.	0.9	62
16	Challenges Handling Magnetospheric and Ionospheric Signals in Internal Geomagnetic Field Modelling. Space Science Reviews, 2017, 206, 157-189.	3.7	57
17	Geomagnetic field residuals from CHAMP satellite: essential for revealing unmodelled sources. Arabian Journal of Geosciences, 2018, 11, 1.	0.6	57
18	Are geomagnetic data consistent with stably stratified flow at the coreâ€“mantle boundary?. Geophysical Journal International, 2015, 201, 929-946.	1.0	54

#	Article	IF	Citations
19	The 9th-Generation International Geomagnetic Reference Field. Geophysical Journal International, 2003, 155, 1051-1056.	1.0	47
20	Crustal Magnetic Fields of Terrestrial Planets. Space Science Reviews, 2010, 152, 223-249.	3.7	46
21	Modelling the Earthâ€™s core magnetic field under flow constraints. Earth, Planets and Space, 2010, 62, 503-516.	0.9	46
22	Geomagnetic Core Field Secular Variation Models. Space Science Reviews, 2010, 155, 129-145.	3.7	44
23	Introducing localized constraints in global geomagnetic field modelling. Earth, Planets and Space, 2006, 58, 477-483.	0.9	43
24	Timescales of geomagnetic secular acceleration in satellite field models and geodynamo models. Geophysical Journal International, 2012, 190, 243-254.	1.0	43
25	In-flight scalar calibration and characterisation of the Swarm magnetometry package. Earth, Planets and Space, 2016, 68, .	0.9	42
26	Geomagnetic Observations and Models. , 2011, , .		42
27	Parent magnetic field models for the IGRF-12GFZ-candidates. Earth, Planets and Space, 2015, 67, .	0.9	35
28	Global equivalent magnetization of the oceanic lithosphere. Earth and Planetary Science Letters, 2015, 430, 54-65.	1.8	35
29	GeoForschungsZentrum Anomaly Magnetic Map (GAMMA): A candidate model for the World Digital Magnetic Anomaly Map. Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	1.0	34
30	Recent changes of the Earthâ€™s core derived from satellite observations of magnetic and gravity fields. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19129-19133.	3.3	33
31	Modeling and Predicting the Shortâ€Term Evolution of the Geomagnetic Field. Journal of Geophysical Research: Solid Earth, 2018, 123, 4539-4560.	1.4	33
32	Evaluation of candidate models for the 13th generation International Geomagnetic Reference Field. Earth, Planets and Space, 2021, 73, .	0.9	33
33	A global lithospheric magnetic field model with reduced noise level in the Polar Regions. Geophysical Research Letters, 2006, 33, .	1.5	29
34	Post-processing scheme for modelling the lithospheric magnetic field. Solid Earth, 2013, 4, 105-118.	1.2	29
35	Wavelet characterization of external magnetic sources as observed by CHAMP satellite: evidence for unmodelled signals in geomagnetic field models. Geophysical Journal International, 2013, 192, 946-950.	1.0	28
36	Constraining the Date of the Martian Dynamo Shutdown by Means of Crater Magnetization Signatures. Journal of Geophysical Research E: Planets, 2017, 122, 2294-2311.	1.5	28

#	Article	IF	Citations
37	Sequential modelling of the Earthâ€™s core magnetic field. Earth, Planets and Space, 2020, 72, .	0.9	28
38	The Kalmag model as a candidate for IGRF-13. Earth, Planets and Space, 2020, 72, .	0.9	28
39	The satellite along-track analysis in planetary magnetism. Geophysical Journal International, 2012, 188, 891-907.	1.0	27
40	On the frequency spectra of the core magnetic field Gauss coefficients. Physics of the Earth and Planetary Interiors, 2018, 276, 145-158.	0.7	27
41	Space weather effects on drilling accuracy in the North Sea. Annales Geophysicae, 2005, 23, 3081-3088.	0.6	26
42	An extended version of the C3FM geomagnetic field model: application of a continuous frozen-flux constraint. Geophysical Journal International, 2012, 189, 1409-1429.	1.0	25
43	A magnetic field model with daily variations of the magnetospheric field and its induced counterpart in 2001. Geophysical Journal International, 2004, 160, 79-88.	1.0	24
44	Correlationâ€based modeling and separation of geomagnetic field components. Journal of Geophysical Research: Solid Earth, 2016, 121, 3142-3160.	1.4	24
45	Magnetic potential, vector and gradient tensor fields of a tesseroid in a geocentric spherical coordinate system. Geophysical Journal International, 2015, 201, 1977-2007.	1.0	23
46	An algorithm for deriving core magnetic field models from the Swarm data set. Earth, Planets and Space, 2013, 65, 1223-1231.	0.9	22
47	On the accuracy of palaeopole estimations from magnetic field measurements. Geophysical Journal International, 2017, 211, 1669-1678.	1.0	21
48	Rapid Variations of Earthâ€™s Core Magnetic Field. Surveys in Geophysics, 2022, 43, 41-69.	2.1	21
49	Exact solutions for internally induced magnetization in a shell. Geophysical Journal International, 2000, 140, 453-459.	1.0	20
50	Using geomagnetic secular variation to separate remanent and induced sources of the crustal magnetic field. Geophysical Journal International, 2000, 142, 889-897.	1.0	19
51	The flow at the Earth's coreâ€mantle boundary under weak prior constraints. Journal of Geophysical Research: Solid Earth, 2016, 121, 1343-1364.	1.4	19
52	2-D and 3-D interpretation of electrical tomography measurements, Part 2: The inverse problem. Geophysics, 1999, 64, 396-402.	1.4	18
53	A technique for estimating the absolute vector geomagnetic field from a marine vessel. Journal of Geophysics and Engineering, 2004, 1, 109-115.	0.7	17
54	Ninth generation international geomagnetic reference field released. Eos, 2003, 84, 503-503.	0.1	16

#	Article	IF	Citations
55	The 9th Generation International Geomagnetic Reference Field. Earth, Planets and Space, 2003, 55, i-ii.	0.9	15
56	Magnetic Field Data Correction in Space for Modelling the Lithospheric Magnetic Field. Space Science Reviews, 2017, 206, 191-223.	3.7	15
57	Evaluation of fast spherical transforms for geophysical applications. Geophysical Journal International, 1999, 139, 547-555.	1.0	14
58	The BGS magnetic field candidate models for the 10th generation IGRF. Earth, Planets and Space, 2005, 57, 1157-1163.	0.9	14
59	Simple models for the Beattie Magnetic Anomaly in South Africa. Tectonophysics, 2009, 478, 111-118.	0.9	13
60	Radial vorticity constraint in core flow modeling. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	13
61	Bayesian inversion for the filtered flow at the Earth's coreâ€mantle boundary. Journal of Geophysical Research: Solid Earth, 2014, 119, 2695-2720.	1.4	13
62	Geomagnetic effects of the Earthâ€™s ellipticity. Geophysical Journal International, 1999, 138, 285-289.	1.0	11
63	The 9th Generation International Geomagnetic Reference Field. Physics of the Earth and Planetary Interiors, 2003, 140, 253-254.	0.7	10
64	Estimating error statistics for Chambon-la-ForÃªt observatory definitive data. Annales Geophysicae, 2017, 35, 939-952.	0.6	10
65	A candidate secular variation model for IGRF-13 based on MHD dynamo simulation and 4DEnVar data assimilation. Earth, Planets and Space, 2020, 72, .	0.9	10
66	2-D and 3-D interpretation of electrical tomography measurements, Part 1: The forward problem. Geophysics, 1999, 64, 386-395.	1.4	9
67	On the feasibility of routine baseline improvement in processing of geomagnetic observatory data. Earth, Planets and Space, 2018, 70, .	0.9	9
68	A secular variation candidate model for IGRF-13 based on Swarm data and ensemble inverse geodynamo modelling. Earth, Planets and Space, 2021, 73, .	0.9	9
69	Geomagnetic Core Field Models in the Satellite Era. , 2011, , 277-294.		9
70	Aeromagnetic and Marine Measurements. , 2011, , 57-103.		9
71	Regional modelling of the Southern African geomagnetic field using harmonic splines. Geophysical Journal International, 2010, , .	1.0	8
72	Non-singular spherical harmonic expressions of geomagnetic vector and gradient tensor fields in the local north-oriented reference frame. Geoscientific Model Development, 2015, 8, 1979-1990.	1.3	8

#	Article	IF	Citations
73	Unveiling Earth's Hidden Magnetization. Geophysical Research Letters, 2018, 45, 12,283-12,292.	1.5	8
74	Making a Better Magnetic Map. Eos, 2016, 97, .	0.1	8
75	Comment on â€œCan coreâ€surface flow models be used to improve the forecast of the Earth's main magnetic field?â€•by Stefan Maus, Luis Silva, and Gauthier Hulot. Journal of Geophysical Research, 2009, 114, .	3.3	7
76	Marsâ€™ Crustal Magnetic Field. Astrophysics and Space Science Library, 2018, , 331-356.	1.0	7
77	SOUTHERN AFRICAN GEOMAGNETIC SECULAR VARIATION FROM 2005 TO 2009. South African Journal of Geology, 2011, 114, 515-524.	0.6	6
78	The Earthâ€™s Magnetic Field at the CHAMP Satellite Epoch. Advanced Technologies in Earth Sciences, 2010, , 475-526.	0.9	6
79	Deriving main field and secular variation models from synthetic Swarm satellite and observatory data. Earth, Planets and Space, 2006, 58, 409-416.	0.9	5
80	Retrieving lithospheric magnetisation distribution from magnetic field models. Geophysical Journal International, 0, , .	1.0	4
81	Crustal Magnetic Fields of Terrestrial Planets. Space Sciences Series of ISSI, 2009, , 223-249.	0.0	4
82	Physics-based secular variation candidate models for the IGRF. Earth, Planets and Space, 2021, 73, .	0.9	4
83	Challenges Handling Magnetospheric and Ionospheric Signals in Internal Geomagnetic Field Modelling. Space Sciences Series of ISSI, 2018, , 161-193.	0.0	3
84	Geomagnetic secular variation violating the frozen-flux condition at the core surface. Earth, Planets and Space, 2010, 62, 693-709.	0.9	2
85	Modeling of the Ionospheric Current System and Calculating Its Contribution to the Earthâ€™s Magnetic Field. Astrophysics and Space Science Library, 2018, , 263-292.	1.0	2
86	Geomagnetic Core Field Secular Variation Models. Space Sciences Series of ISSI, 2009, , 129-145.	0.0	2
87	Magnetic Modeling, Theory and Computation. Encyclopedia of Earth Sciences Series, 2011, , 781-792.	0.1	2
88	On the azimuthally dependent contribution of crustal magnetization to the magnetic field. Geophysical Journal International, 2000, 142, 991-994.	1.0	1
89	Time-stamp correction of magnetic observatory data acquired during unavailability of time-synchronization services. Geoscientific Instrumentation, Methods and Data Systems, 2017, 6, 311-317.	0.6	1
90	Repeat station data compared to a global geomagnetic field model. Annals of Geophysics, 2013, 55, .	0.5	1

#	Article	IF	Citations
91	Magnetic Modeling, Theory, and Computation. Encyclopedia of Earth Sciences Series, 2020, , 1-15.	0.1	1
92	Alternative Parameterisations of the External Magnetic Field and its Induced Counterpart for 2001 and 2002 Using Ã˜rsted, Champ and Observatory Data. , 2005, , 299-304.		0
93	The Global Lithospheric Magnetic Field. , 2019, , 133-140.		0
94	Magnetic Modeling, Theory, and Computation. Encyclopedia of Earth Sciences Series, 2021, , 1015-1029.	0.1	0
95	Geomagnetic field evolution. Changes on the way?. Russian Journal of Earth Sciences, 2010, 11, 1-8.	0.2	0
96	Magnetic Field Data Correction in Space for Modelling the Lithospheric Magnetic Field. Space Sciences Series of ISSI, 2018, , 195-227.	0.0	0