Brian Borchers

List of Publications by Year
in descending order

83 papers	2,993 citations	361413 20 h-index	477307 29 g-index
95 all docs	95 docs citations	95 times ranked	2914 citing authors

#	ARTICLE	IF	CITATIONS
1	Updating the Fast Grain Boundary program: Temperature-time paths from intragrain oxygen isotope zoning. Computers and Geosciences, 2021, 151, 104753.	4.2	0
2	Quantifying Hydraulic and Water Quality Uncertainty to Inform Sampling of Drinking Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2019, 145, .	2.6	16
3	Rank Deficiency and Ill-Conditioning. , 2019, , 55-91.		3
4	Tikhonov Regularization. , 2019, , 93-134.		3
5	Discretizing Inverse Problems Using Basis Functions. , 2019, , 135-149.		0
6	Iterative Methods. , 2019, , 151-179.		2
7	Sparsity Regularization and Total Variation Techniques. , 2019, , 181-209.		1
8	Fourier Techniques. , 2019, , 211-233.		0
9	Nonlinear Regression. , 2019, , 235-256.		1
10	Nonlinear Inverse Problems. , 2019, , 257-278.		53
11	Bayesian Methods. , 2019, , 279-306.		4
12	Review of Linear Algebra. , 2019, , 309-340.		0
13	Review of Probability and Statistics. , 2019, , 341-362.		0
14	Review of Vector Calculus. , 2019, , 363-369.		0
15	Glossary of Notation. , 2019, , 371-372.		0
16	Using Supervised Machine Learning to Improve Active Source Signal Retrieval. Seismological Research Letters, 2018, 89, 1023-1029.	1.9	6
17	Spatial variability of SEBAL estimated root-zone soil moisture across scales. International Journal of Remote Sensing, 2016, 37, 4838-4853.	2.9	1
18	Geological calibration of spallation production rates in the CRONUS-Earth project. Quaternary Geochronology, 2016, 31, 188-198.	1.4	503

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19	Cosmogenic nuclide systematics and the CRONUScalc program. Quaternary Geochronology, 2016, 31, 160-187.	1.4	246
20	Remote sensing for soil map unit boundary detection. , 2014, , .		1
21	Rank Deficiency and Ill-Conditioning. , 2013, , 55-91.		2
22	Discretizing Problems Using Basis Functions. , 2013, , 129-140.		0
23	Iterative Methods. , 2013, , 141-168.		3
24	Additional Regularization Techniques. , 2013, , 169-192.		1
25	Nonlinear Regression. , 2013, , 217-238.		3
26	Nonlinear Inverse Problems. , 2013, , 239-252.		103
27	Bayesian Methods. , 2013, , 253-280.		9
28	Effects of magnetite on high-frequency ground-penetrating radar. Geophysics, 2013, 78, H1-H11.	2.6	15
29	Tikhonov Regularization. , 2013, , 93-127.		19
30	Fourier Techniques. , 2013, , 193-216.		1
31	Efficient stochastic estimation of the model resolution matrix diagonal and generalized cross–validation for large geophysical inverse problems. Journal of Geophysical Research, 2011, 116, .	3.3	32
32	Down-scaling of SEBAL derived evapotranspiration maps from MODIS (250 m) to Landsat (30 m) scales. International Journal of Remote Sensing, 2011, 32, 6457-6477.	2.9	47
33	High-resolution soil moisture mapping in Afghanistan. , 2011, , .		0
34	High-resolution soil moisture mapping using operational optical satellite imagery. , 2010, , .		3
35	Theory and simulation of the dynamic heat capacity of the east Ising model. Journal of Chemical Physics, 2010, 133, 064508.	3.0	2
36	Up-scaling of SEBAL derived evapotranspiration maps from Landsat (30m) to MODIS (250m) scale. Journal of Hydrology, 2009, 370, 122-138.	5.4	67

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37	Preliminary validation of RADARSAT-2 surface soil moisture estimates. Proceedings of SPIE, 2009, , .	0.8	0
38	Review of practical optimization: algorithms and engineering applications by Andreas Antoniou and Wu-Sheng Lu (Springer Verlag, 2007). ACM SIGACT News, 2009, 40, 20-22.	0.1	0
39	Global prediction of thermal soil regimes. , 2008, , .		2
40	MINLP: Branch and Bound Methods. , 2008, , 2138-2142.		2
41	Review of "Computational Techniques of the Simplex Method by IstvÃ¡n Maros", Kluwer Academic Publishers, 2003. ACM SIGACT News, 2007, 38, 27-30.	0.1	0
42	Implementation of a primalâ€"dual method for SDP on a shared memory parallel architecture. Computational Optimization and Applications, 2007, 37, 355-369.	1.6	47
43	The Art of Computer Programming, by D.E. Knuth. Scientific Programming, 2006, 14, 267-268.	0.7	2
44	Magnetic soil properties at two arid to semi-arid sites in the western United States. , 2006, , .		2
45	Effect of magnetite on GPR for detection of buried landmines. , 2006, , .		1
46	New Mexico Tech landmine, UXO, IED detection sensor test facility: measurements in real field soils. , 2006, , .		3
47	Variability of magnetic soil properties in Hawaii. , 2005, 5794, 157.		6
48	Conceptual model for prediction of magnetic properties in tropical soils. , 2005, , .		13
49	Magnetic soil properties in Ghana. , 2005, 5794, 165.		6
50	Methods for prediction of soil dielectric properties: a review. , 2005, , .		46
51	Strength of landmine signatures under different soil conditions: implications for sensor fusion. International Journal of Systems Science, 2005, 36, 573-588.	5.5	29
52	Effect of scaling transfer between evapotranspiration maps derived from LandSat 7 and MODIS images. , 2005, 5811, 147.		6
53	A Comparison of Nonlinear Regression Codes. Journal of Modern Applied Statistical Methods, 2005, 4, 343-351.	0.2	2
54	Radar Detection of Buried Landmines in Field Soils. Vadose Zone Journal, 2004, 3, 1116-1127.	2.2	30

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55	The Lanczos Method: Evolution and Application, by Louis Komzsik. Scientific Programming, 2004, 12, 197-198.	0.7	0
56	Spatial variability of magnetic soil properties. , 2004, , .		19
57	Prediction of soil effects on GPR signatures. , 2004, , .		9
58	A controlled outdoor test site for evaluation of soil effects on landmine detection sensors. , 2004, , .		3
59	Controlled field experiments of wind effects on thermal signatures of buried and surface-laid landmines. , 2004, , .		3
60	Soil effects on GPR detection of buried non-metallic mines. Geological Society Special Publication, 2003, 211, 191-198.	1.3	4
61	Worldwide distribution of soil dielectric and thermal properties. , 2003, , .		30
62	Soil effects on thermal signatures of buried nonmetallic landmines. , 2003, , .		14
63	<title>Land mine detection in bare soils using thermal infrared sensors</title>. , 2002, , .		17
64	<title>Effect of soil moisture on land mine detection using ground penetrating radar</title>. , 2002, 4742, 281.		13
65	An Automatic, Adaptive Algorithm for Refining Phase Picks in Large Seismic Data Sets. Bulletin of the Seismological Society of America, 2002, 92, 1660-1674.	2.3	105
66	MODELING TRANSIENT WATER DISTRIBUTIONS AROUND LANDMINES IN BARE SOILS. Soil Science, 2001, 166, 163-173.	0.9	35
67	Spatial variability of dielectric properties in field soils. , 2001, , .		14
68	Impact of soil water content on landmine detection using radar and thermal infrared sensors. , 2001, , .		19
69	Modeling transient temperature distributions around landmines in homogenous bare soils. , 2001, , .		9
70	A MATLAB implementation of the minimum relative entropy method for linear inverse problems. Computers and Geosciences, 2001, 27, 757-762.	4.2	9
71	MINLP: Branch and Bound Methods. , 2001, , 1421-1425.		0
72	Enhancing dielectric contrast between land mines and the soil environment by watering: modeling, design, and experimental results. , 2000, , .		9

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73	Comparison of inverse methods for reconstructing the release history of a groundwater contamination source. Water Resources Research, 2000, 36, 2469-2475.	4.2	79
74	Solving Linear Ordering Problems with a Combined Interior Point/Simplex Cutting Plane Algorithm. Applied Optimization, 2000, , 349-366.	0.4	41
75	CSDP 2.3 user's guide. Optimization Methods and Software, 1999, 11, 597-611.	2.4	33
76	CSDP, A C library for semidefinite programming. Optimization Methods and Software, 1999, 11, 613-623.	2.4	408
77	SDPLIB 1.2, a library of semidefinite programming test problems. Optimization Methods and Software, 1999, 11, 683-690.	2.4	81
78	Modeling distributions of water and dielectric constants around land mines in homogeneous soils. , 1999, , .		13
79	A Two-Phase Exact Algorithm for MAX-SAT and Weighted MAX-SAT Problems. , 1998, 2, 299-306.		93
80	Tikhonov Regularization of Electrical Conductivity Depth Profiles in Field Soils. Soil Science Society of America Journal, 1997, 61, 1004-1009.	2.2	71
81	A computational comparison of branch and bound and outer approximation algorithms for 0â€"1 mixed integer nonlinear programs. Computers and Operations Research, 1997, 24, 699-701.	4.0	34
82	Solving real-world linear ordering problems using a primal-dual interior point cutting plane method. Annals of Operations Research, 1996, 62, 253-276.	4.1	50
83	An improved branch and bound algorithm for mixed integer nonlinear programs. Computers and Operations Research, 1994, 21, 359-367.	4.0	177