

Brian Borchers

List of Publications by Year in descending order

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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	Geological calibration of spallation production rates in the CRONUS-Earth project. <i>Quaternary Geochronology</i> , 2016, 31, 188-198.	1.4	503
2	CSDP, A C library for semidefinite programming. <i>Optimization Methods and Software</i> , 1999, 11, 613-623.	2.4	408
3	Cosmogenic nuclide systematics and the CRONUScalc program. <i>Quaternary Geochronology</i> , 2016, 31, 160-187.	1.4	246
4	An improved branch and bound algorithm for mixed integer nonlinear programs. <i>Computers and Operations Research</i> , 1994, 21, 359-367.	4.0	177
5	An Automatic, Adaptive Algorithm for Refining Phase Picks in Large Seismic Data Sets. <i>Bulletin of the Seismological Society of America</i> , 2002, 92, 1660-1674.	2.3	105
6	Nonlinear Inverse Problems. , 2013, , 239-252.		103
7	A Two-Phase Exact Algorithm for MAX-SAT and Weighted MAX-SAT Problems. , 1998, 2, 299-306.		93
8	SDPLIB 1.2, a library of semidefinite programming test problems. <i>Optimization Methods and Software</i> , 1999, 11, 683-690.	2.4	81
9	Comparison of inverse methods for reconstructing the release history of a groundwater contamination source. <i>Water Resources Research</i> , 2000, 36, 2469-2475.	4.2	79
10	Tikhonov Regularization of Electrical Conductivity Depth Profiles in Field Soils. <i>Soil Science Society of America Journal</i> , 1997, 61, 1004-1009.	2.2	71
11	Up-scaling of SEBAL derived evapotranspiration maps from Landsat (30m) to MODIS (250m) scale. <i>Journal of Hydrology</i> , 2009, 370, 122-138.	5.4	67
12	Nonlinear Inverse Problems. , 2019, , 257-278.		53
13	Solving real-world linear ordering problems using a primal-dual interior point cutting plane method. <i>Annals of Operations Research</i> , 1996, 62, 253-276.	4.1	50
14	Implementation of a primal-dual method for SDP on a shared memory parallel architecture. <i>Computational Optimization and Applications</i> , 2007, 37, 355-369.	1.6	47
15	Down-scaling of SEBAL derived evapotranspiration maps from MODIS (250 m) to Landsat (30 m) scales. <i>International Journal of Remote Sensing</i> , 2011, 32, 6457-6477.	2.9	47
16	Methods for prediction of soil dielectric properties: a review. , 2005, , .		46
17	Solving Linear Ordering Problems with a Combined Interior Point/Simplex Cutting Plane Algorithm. <i>Applied Optimization</i> , 2000, , 349-366.	0.4	41
18	MODELING TRANSIENT WATER DISTRIBUTIONS AROUND LANDMINES IN BARE SOILS. <i>Soil Science</i> , 2001, 166, 163-173.	0.9	35

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19	A computational comparison of branch and bound and outer approximation algorithms for 0-1 mixed integer nonlinear programs. <i>Computers and Operations Research</i> , 1997, 24, 699-701.	4.0	34
20	CSDP 2.3 user's guide. <i>Optimization Methods and Software</i> , 1999, 11, 597-611.	2.4	33
21	Efficient stochastic estimation of the model resolution matrix diagonal and generalized cross-validation for large geophysical inverse problems. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	32
22	Worldwide distribution of soil dielectric and thermal properties. , 2003, , .		30
23	Radar Detection of Buried Landmines in Field Soils. <i>Vadose Zone Journal</i> , 2004, 3, 1116-1127.	2.2	30
24	Strength of landmine signatures under different soil conditions: implications for sensor fusion. <i>International Journal of Systems Science</i> , 2005, 36, 573-588.	5.5	29
25	Impact of soil water content on landmine detection using radar and thermal infrared sensors. , 2001, , .		19
26	Spatial variability of magnetic soil properties. , 2004, , .		19
27	Tikhonov Regularization. , 2013, , 93-127.		19
28	<title>Land mine detection in bare soils using thermal infrared sensors</title>. , 2002, , .		17
29	Quantifying Hydraulic and Water Quality Uncertainty to Inform Sampling of Drinking Water Distribution Systems. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2019, 145, .	2.6	16
30	Effects of magnetite on high-frequency ground-penetrating radar. <i>Geophysics</i> , 2013, 78, H1-H11.	2.6	15
31	Spatial variability of dielectric properties in field soils. , 2001, , .		14
32	Soil effects on thermal signatures of buried nonmetallic landmines. , 2003, , .		14
33	Modeling distributions of water and dielectric constants around land mines in homogeneous soils. , 1999, , .		13
34	<title>Effect of soil moisture on land mine detection using ground penetrating radar</title>. , 2002, 4742, 281.		13
35	Conceptual model for prediction of magnetic properties in tropical soils. , 2005, , .		13
36	Enhancing dielectric contrast between land mines and the soil environment by watering: modeling, design, and experimental results. , 2000, , .		9

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37	Modeling transient temperature distributions around landmines in homogenous bare soils. , 2001, , .		9
38	A MATLAB implementation of the minimum relative entropy method for linear inverse problems. Computers and Geosciences, 2001, 27, 757-762.	4.2	9
39	Prediction of soil effects on GPR signatures. , 2004, , .		9
40	Bayesian Methods. , 2013, , 253-280.		9
41	Variability of magnetic soil properties in Hawaii. , 2005, 5794, 157.		6
42	Magnetic soil properties in Ghana. , 2005, 5794, 165.		6
43	Effect of scaling transfer between evapotranspiration maps derived from LandSat 7 and MODIS images. , 2005, 5811, 147.		6
44	Using Supervised Machine Learning to Improve Active Source Signal Retrieval. Seismological Research Letters, 2018, 89, 1023-1029.	1.9	6
45	Soil effects on GPR detection of buried non-metallic mines. Geological Society Special Publication, 2003, 211, 191-198.	1.3	4
46	Bayesian Methods. , 2019, , 279-306.		4
47	A controlled outdoor test site for evaluation of soil effects on landmine detection sensors. , 2004, , .		3
48	New Mexico Tech landmine, UXO, IED detection sensor test facility: measurements in real field soils. , 2006, , .		3
49	High-resolution soil moisture mapping using operational optical satellite imagery. , 2010, , .		3
50	Iterative Methods. , 2013, , 141-168.		3
51	Nonlinear Regression. , 2013, , 217-238.		3
52	Rank Deficiency and Ill-Conditioning. , 2019, , 55-91.		3
53	Tikhonov Regularization. , 2019, , 93-134.		3
54	Controlled field experiments of wind effects on thermal signatures of buried and surface-laid landmines. , 2004, , .		3

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55	The Art of Computer Programming, by D.E. Knuth. Scientific Programming, 2006, 14, 267-268.	0.7	2
56	Magnetic soil properties at two arid to semi-arid sites in the western United States. , 2006, , .		2
57	Global prediction of thermal soil regimes. , 2008, , .		2
58	Theory and simulation of the dynamic heat capacity of the east Ising model. Journal of Chemical Physics, 2010, 133, 064508.	3.0	2
59	Rank Deficiency and Ill-Conditioning. , 2013, , 55-91.		2
60	Iterative Methods. , 2019, , 151-179.		2
61	A Comparison of Nonlinear Regression Codes. Journal of Modern Applied Statistical Methods, 2005, 4, 343-351.	0.2	2
62	MINLP: Branch and Bound Methods. , 2008, , 2138-2142.		2
63	Effect of magnetite on GPR for detection of buried landmines. , 2006, , .		1
64	Additional Regularization Techniques. , 2013, , 169-192.		1
65	Fourier Techniques. , 2013, , 193-216.		1
66	Remote sensing for soil map unit boundary detection. , 2014, , .		1
67	Spatial variability of SEBAL estimated root-zone soil moisture across scales. International Journal of Remote Sensing, 2016, 37, 4838-4853.	2.9	1
68	Sparsity Regularization and Total Variation Techniques. , 2019, , 181-209.		1
69	Nonlinear Regression. , 2019, , 235-256.		1
70	The Lanczos Method: Evolution and Application, by Louis Komzsik. Scientific Programming, 2004, 12, 197-198.	0.7	0
71	Review of "Computational Techniques of the Simplex Method by István Maros", Kluwer Academic Publishers, 2003. ACM SIGACT News, 2007, 38, 27-30.	0.1	0
72	Preliminary validation of RADARSAT-2 surface soil moisture estimates. Proceedings of SPIE, 2009, , .	0.8	0

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73	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
74	High-resolution soil moisture mapping in Afghanistan. , 2011, , .		0
75	Discretizing Problems Using Basis Functions. , 2013, , 129-140.		0
76	Discretizing Inverse Problems Using Basis Functions. , 2019, , 135-149.		0
77	Fourier Techniques. , 2019, , 211-233.		0
78	Review of Linear Algebra. , 2019, , 309-340.		0
79	Review of Probability and Statistics. , 2019, , 341-362.		0
80	Review of Vector Calculus. , 2019, , 363-369.		0
81	Glossary of Notation. , 2019, , 371-372.		0
82	Updating the Fast Grain Boundary program: Temperature-time paths from intragrain oxygen isotope zoning. Computers and Geosciences, 2021, 151, 104753.	4.2	0
83	MINLP: Branch and Bound Methods. , 2001, , 1421-1425.		0