Vasco Brattka

List of Publications by Year
in descending order

64 papers	1,313 citations	430442 18 h-index	433756 31 g-index
77 all docs	77 docs citations	77 times ranked	167 citing authors

#	Article	IF	Citations
1	Computability on subsets of metric spaces. Theoretical Computer Science, 2003, 305, 43-76.	0.5	117
2	Computability on subsets of Euclidean space I: closed and compact subsets. Theoretical Computer Science, 1999, 219, 65-93.	0.5	105
3	A Tutorial on Computable Analysis. , 2008, , 425-491.		99
4	Weihrauch degrees, omniscience principles and weak computability. Journal of Symbolic Logic, 2011, 76, 143-176.	0.4	75
5	Effective Borel measurability and reducibility of functions. Mathematical Logic Quarterly, 2005, 51, 19-44.	0.2	70
6	Effective Choice and Boundedness Principles in Computable Analysis. Bulletin of Symbolic Logic, 2011, 17, 73-117.	0.2	67
7	Computability and analysis: the legacy of Alan Turing. , 2014, , 1-47.		66
8	The Bolzanoâ€"Weierstrass Theorem is the jump of Weak KÅ'nigâ€™s Lemma. Annals of Pure and Applied Logic, 2012, 163, 623-655.	0.3	60
9	Closed choice and a Uniform Low Basis Theorem. Annals of Pure and Applied Logic, 2012, 163, 986-1008.	0.3	58
10	Plottable Real Number Functions and the Computable Graph Theorem. SIAM Journal on Computing, 2008, 38, 303-328.	0.8	43
11	Recursive characterization of computable real-valued functions and relations. Theoretical Computer Science, 1996, 162, 45-77.	0.5	41
12	Topological properties of real number representations. Theoretical Computer Science, 2002, 284, 241-257.	0.5	39
13	Feasible Real Random Access Machines. Journal of Complexity, 1998, 14, 490-526.	0.7	34
14	Probabilistic computability and choice. Information and Computation, 2015, 242, 249-286.	0.5	32
15	Computable invariance. Theoretical Computer Science, 1999, 210, 3-20.	0.5	30
16	Randomness and differentiability. Transactions of the American Mathematical Society, 2016, 368, 581-605.	0.5	30
17	Computability in linear algebra. Theoretical Computer Science, 2004, 326, 187-211.	0.5	26
18	Towards computability of elliptic boundary value problems in variational formulation. Journal of Complexity, 2006, 22, 858-880.	0.7	24

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19	Computability over Topological Structures. , 2003, , 93-136.		23
20	Borel Complexity of Topological Operations on Computable Metric Spaces. Journal of Logic and Computation, 2009, 19, 45-76.	0.5	19
21	ON THE UNIFORM COMPUTATIONAL CONTENT OF RAMSEYâ€™S THEOREM. Journal of Symbolic Logic, 2017, 82, 1278-1316.	0.4	19
22	Computable Versions of Baireâ€™s Category Theorem. Lecture Notes in Computer Science, 2001, , 224-235.	1.0	17
23	Borel complexity and computability of the Hahnâ€"Banach Theorem. Archive for Mathematical Logic, 2008, 46, 547-564.	0.2	15
24	Recursive quasi-metric spaces. Theoretical Computer Science, 2003, 305, 17-42.	0.5	14
25	Computation with Advice. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 24, 41-55.	0.8	14
26	On the Uniform Computational Content of Computability Theory. Theory of Computing Systems, 2017, 61, 1376-1426.	0.7	12
27	A Computable Spectral Theorem. Lecture Notes in Computer Science, 2001, , 378-388.	1.0	11
28	Borel Complexity of Topological Operations on Computable Metric Spaces. Lecture Notes in Computer Science, 2007, , 83-97.	1.0	10
29	Order-free Recursion on the Real Numbers. Mathematical Logic Quarterly, 1997, 43, 216-234.	0.2	9
30	Computing with Sequences, Weak Topologies and the Axiom of Choice. Lecture Notes in Computer Science, 2005, , 462-476.	1.0	9
31	COMPUTABILITY ON NON-SEPARABLE BANACH SPACES AND LANDAU'S THEOREM. , 2005, , 316-334.		9
32	Connected choice and the Brouwer fixed point theorem. Journal of Mathematical Logic, 2019, 19, 1950004.	0.6	8
33	Completion of choice. Annals of Pure and Applied Logic, 2021, 172, 102914.	0.3	8
34	The Inversion Problem for Computable Linear Operators. Lecture Notes in Computer Science, 2003, , 391-402.	1.0	8
35	On the Computational Content of the Brouwer Fixed Point Theorem. Lecture Notes in Computer Science, 2012, , 56-67.	1.0	8
36	From Hilbertâ€™s 13th Problem to the theory of neural networks: constructive aspects of Kolmogorovâ€™s Superposition Theorem. , 2007, , 253-280.		7

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37	On the Uniform Computational Content of the Baire Category Theorem. Notre Dame Journal of Formal Logic, 2018, 59, .	0.2	6
38	Computing Uniform Bounds. Electronic Notes in Theoretical Computer Science, 2002, 66, 13-24.	0.9	5
39	On the Borel Complexity of Hahn-Banach Extensions. Electronic Notes in Theoretical Computer Science, 2005, 120, 3-16.	0.9	5
40	Computing the Dimension of Linear Subspaces. Lecture Notes in Computer Science, 2000, , 450-458.	1.0	5
41	Feasible real random access machines. Lecture Notes in Computer Science, 1996, , 335-342.	1.0	4
42	Computable invariance. Lecture Notes in Computer Science, 1997, , 146-155.	1.0	4
43	A computable version of Banachâ€™s Inverse Mapping Theorem. Annals of Pure and Applied Logic, 2009, 157, 85-96.	0.3	4
44	Computability and Analysis, a Historical Approach. Lecture Notes in Computer Science, 2016, , 45-57.	1.0	4
45	The Vitali Covering Theorem in the Weihrauch Lattice. Lecture Notes in Computer Science, 2017, , 188-200.	1.0	4
46	Effective representations of the space of linear bounded operators. Applied General Topology, 2003, 4, 115.	0.1	4
47	Approaches to Effective Semi-Continuity of Real Functions. Mathematical Logic Quarterly, 1999, 45, 481-496.	0.2	3
48	Computability of Linear Equations. , 2002, , 95-106.		3
49	Generated quasi-metric hyper and function spaces. Topology and Its Applications, 2003, 127, 355-373.	0.2	2
50	Computability of compact operators on computable Banach spaces with bases. Mathematical Logic Quarterly, 2007, 53, 345-364.	0.2	2
51	Computable versions of the uniform boundedness theorem. , 0, , 130-151.		2
52	WEIHRAUCH GOES BROUWERIAN. Journal of Symbolic Logic, 2020, 85, 1614-1653.	0.4	2
53	Computability of finite-dimensional linear subspaces and best approximation. Annals of Pure and Applied Logic, 2010, 162, 182-193.	0.3	1
54	THE DISCONTINUITY PROBLEM. Journal of Symbolic Logic, 0, , 1-22.	0.4	1

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55	Recursion and Computability over Topological Structures. Electronic Notes in Theoretical Computer Science, 2001, 40, 5.	0.9	0
56	Preface: MLQ - Math. Log. Quart. Supplement 1/2002. Mathematical Logic Quarterly, 2002, 48, III-III.	0.2	0
57	Computability and Complexity in Analysis (CCA). A View from Interval Computations -Cincinnati, Ohio, USA, August 28â€"30, 2003. Reliable Computing, 2004, 10, 75-80.	0.8	0
58	On Computable Compact Operators on Banach Spaces. Electronic Notes in Theoretical Computer Science, 2007, 167, 365-386.	0.9	0
59	Computability of the Metric Projection Onto Finite-dimensional Linear Subspaces. Electronic Notes in Theoretical Computer Science, 2008, 221, 45-60.	0.9	0
60	Editorial: Math. Log. Quart. 5/2008. Mathematical Logic Quarterly, 2008, 54, 453-453.	0.2	0
61	Preface to the special issue: Computing with infinite data: topological and logical foundations. Mathematical Structures in Computer Science, 2015, 25, 1463-1465.	0.5	0
62	Addendum to: â€œThe Bolzanoâ€"Weierstrass theorem is the jump of weak KÅ'nig's lemmaâ€•[Ann. Pure Appl. Logic 163 (6) (2012) 623â€"655]. Annals of Pure and Applied Logic, 2017, 168, 1605-1608.	0.3	0
63	Preface of the special issue for the Oberwolfach Workshop on Computability Theory 2018. Computability, 2019, 8, 191-191.	0.3	0
64	Dagstuhl Seminar on Measuring the Complexity of Computational Content 2018. Computability, 2020, 9, 167-168.	0.3	0