

# Bozhidar Velichkov

## List of Publications by Year in descending order

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36  
papers

431  
citations

759233

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h-index

794594

19  
g-index

38  
all docs

38  
docs citations

38  
times ranked

161  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the logarithmic epiperimetric inequality for the obstacle problem. <i>Mathematics in Engineering</i> , 2021, 3, 1-42.	0.9	1
2	Regularity of the free boundary for the two-phase Bernoulli problem. <i>Inventiones Mathematicae</i> , 2021, 225, 347-394.	2.5	6
3	Direct Epiperimetric Inequalities for the Thin Obstacle Problem and Applications. <i>Communications on Pure and Applied Mathematics</i> , 2020, 73, 384-420.	3.1	17
4	Free boundary regularity for a multiphase shape optimization problem. <i>Communications in Partial Differential Equations</i> , 2020, 45, 77-108.	2.2	6
5	Regularity of the free boundary for the vectorial Bernoulli problem. <i>Analysis and PDE</i> , 2020, 13, 741-764.	1.4	12
6	On the asymptotic behavior of the solutions to parabolic variational inequalities. <i>Journal Fur Die Reine Und Angewandte Mathematik</i> , 2020, 2020, 149-182.	0.9	2
7	Uniqueness of the blowup at isolated singularities for the Alt-Caffarelli functional. <i>Duke Mathematical Journal</i> , 2020, 169, .	1.5	7
8	An Epiperimetric Inequality for the Regularity of Some Free Boundary Problems: The 2-Dimensional Case. <i>Communications on Pure and Applied Mathematics</i> , 2019, 72, 375-421.	3.1	14
9	Numerical Calibration of Steiner trees. <i>Applied Mathematics and Optimization</i> , 2019, 79, 69-86.	1.6	11
10	Existence and regularity of optimal shapes for elliptic operators with drift. <i>Calculus of Variations and Partial Differential Equations</i> , 2019, 58, 1.	1.7	11
11	Serrin-type theorems for triangles. <i>Proceedings of the American Mathematical Society</i> , 2019, 147, 1615-1626.	0.8	4
12	(Log-)epiperimetric inequality and regularity over smooth cones for almost area-minimizing currents. <i>Geometry and Topology</i> , 2019, 23, 513-540.	1.3	6
13	Regularity of minimizers of shape optimization problems involving perimeter. <i>Journal Des Mathematiques Pures Et Appliquees</i> , 2018, 109, 147-181.	1.6	7
14	On the honeycomb conjecture for a class of minimal convex partitions. <i>Transactions of the American Mathematical Society</i> , 2018, 370, 7149-7179.	0.9	10
15	A logarithmic epiperimetric inequality for the obstacle problem. <i>Geometric and Functional Analysis</i> , 2018, 28, 1029-1061.	1.8	19
16	A Shape Optimal Control Problem with Changing Sign Data. <i>SIAM Journal on Mathematical Analysis</i> , 2018, 50, 2608-2627.	1.9	5
17	Optimal Potentials for Problems with Changing Sign Data. <i>Journal of Optimization Theory and Applications</i> , 2018, 178, 743-762.	1.5	1
18	Regularity of the optimal sets for some spectral functionals. <i>Geometric and Functional Analysis</i> , 2017, 27, 373-426.	1.8	24

#	ARTICLE	IF	CITATIONS
19	Worst-case shape optimization for the Dirichlet energy. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , 2017, 153, 117-129.	1.1	5
20	A Multiphase Shape Optimization Problem for Eigenvalues: Qualitative Study and Numerical Results. <i>SIAM Journal on Numerical Analysis</i> , 2016, 54, 210-241.	2.3	14
21	BV Estimates in Optimal Transportation and Applications. <i>Archive for Rational Mechanics and Analysis</i> , 2016, 219, 829-860.	2.4	26
22	Existence and Regularity Results for Some Shape Optimization Problems. , 2015, , .		13
23	A free boundary problem arising in PDE optimization. <i>Calculus of Variations and Partial Differential Equations</i> , 2015, 54, 3829-3856.	1.7	3
24	Faber-Krahn inequalities in sharp quantitative form. <i>Duke Mathematical Journal</i> , 2015, 164, .	1.5	55
25	Lipschitz Regularity of the Eigenfunctions on Optimal Domains. <i>Archive for Rational Mechanics and Analysis</i> , 2015, 216, 117-151.	2.4	25
26	A free boundary approach to shape optimization problems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140273.	3.4	2
27	A note on the monotonicity formula of Caffarelli-Jerison-Kenig. <i>Atti Della Accademia Nazionale Dei Lincei, Classe Di Scienze Fisiche, Matematiche E Naturali, Rendiconti Lincei Matematica E Applicazioni</i> , 2014, 25, 165-189.	0.6	5
28	Spectral Optimization Problems for Potentials and Measures. <i>SIAM Journal on Mathematical Analysis</i> , 2014, 46, 2956-2986.	1.9	13
29	Shape optimization problems for metric graphs. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2014, 20, 1-22.	1.3	5
30	Existence and Regularity of Minimizers for Some Spectral Functionals with Perimeter Constraint. <i>Applied Mathematics and Optimization</i> , 2014, 69, 199-231.	1.6	33
31	Multiphase Shape Optimization Problems. <i>SIAM Journal on Control and Optimization</i> , 2014, 52, 3556-3591.	2.1	21
32	Spectral optimization problems with internal constraint. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2013, 30, 477-495.	1.4	12
33	Shape optimization problems on metric measure spaces. <i>Journal of Functional Analysis</i> , 2013, 264, 1-33.	1.4	8
34	Decay Estimates for the Supercritical 3-D Schrödinger Equation with Rapidly Decreasing Potential. <i>Progress in Mathematics</i> , 2012, , 145-162.	0.3	1
35	Optimal potentials for Schrödinger operators. <i>Journal De L'Ecole Polytechnique - Mathematiques</i> , 0, 1, 71-100.	0.0	9
36	Some new problems in spectral optimization. <i>Banach Center Publications</i> , 0, 101, 19-35.	0.1	2