

# Shengfeng Zhu

## List of Publications by Year in descending order

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29  
papers

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times ranked

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#	ARTICLE	IF	CITATIONS
1	A two-grid binary level set method for structural topology optimization. <i>Engineering Optimization</i> , 2023, 55, 1100-1117.	2.6	1
2	A level set method for Laplacian eigenvalue optimization subject to geometric constraints. <i>Computational Optimization and Applications</i> , 2022, 82, 499-524.	1.6	3
3	RBF-FD solution for a financial partial-integro differential equation utilizing the generalized multiquadric function. <i>Computers and Mathematics With Applications</i> , 2021, 82, 161-178.	2.7	9
4	On Discrete Shape Gradients of Boundary Type for PDE-constrained Shape Optimization. <i>SIAM Journal on Numerical Analysis</i> , 2021, 59, 1510-1541.	2.3	9
5	A Two-Grid Binary Level Set Method for Eigenvalue Optimization. <i>Journal of Scientific Computing</i> , 2021, 89, 1.	2.3	3
6	On a high-order Gaussian radial basis function generated Hermite finite difference method and its application. <i>Calcolo</i> , 2021, 58, 1.	1.1	5
7	On accuracy of approximate boundary and distributed shape gradient flows for eigenvalue optimization. <i>Journal of Computational and Applied Mathematics</i> , 2020, 365, 1122-74.	1.1	3
8	Isogeometric analysis for time-fractional partial differential equations. <i>Numerical Algorithms</i> , 2020, 85, 909-930.	1.9	6
9	Convergence analysis of Galerkin finite element approximations to shape gradients in eigenvalue optimization. <i>BIT Numerical Mathematics</i> , 2020, 60, 853-878.	2.0	9
10	Shape identification in Stokes flow with distributed shape gradients. <i>Applied Mathematics Letters</i> , 2019, 95, 165-171.	2.7	9
11	Proper orthogonal decomposition with SUPG-stabilized isogeometric analysis for reduced order modelling of unsteady convection-dominated convection-diffusion-reaction problems. <i>Journal of Computational Physics</i> , 2019, 387, 280-302.	3.8	13
12	Convergence analysis of mixed finite element approximations to shape gradients in the Stokes equation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 343, 127-150.	6.6	16
13	The time-dependent generalized membrane shell model and its numerical computation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 344, 54-70.	6.6	11
14	Effective Shape Optimization of Laplace Eigenvalue Problems Using Domain Expressions of Eulerian Derivatives. <i>Journal of Optimization Theory and Applications</i> , 2018, 176, 17-34.	1.5	23
15	A multi-mesh finite element method for phase-field based photonic band structure optimization. <i>Journal of Computational Physics</i> , 2018, 357, 324-337.	3.8	17
16	A level set method for shape optimization in semilinear elliptic problems. <i>Journal of Computational Physics</i> , 2018, 355, 104-120.	3.8	12
17	Isogeometric analysis and proper orthogonal decomposition for parabolic problems. <i>Numerische Mathematik</i> , 2017, 135, 333-370.	1.9	24
18	Accuracy of Finite Element Methods for Boundary-Value Problems of Steady-State Fractional Diffusion Equations. <i>Journal of Scientific Computing</i> , 2017, 70, 429-449.	2.3	25

#	ARTICLE	IF	CITATIONS
19	Isogeometric analysis and proper orthogonal decomposition for the acoustic wave equation. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2017, 51, 1197-1221.	1.9	17
20	Laguerre pseudospectral approximation to the Thomas-Fermi equation. <i>Journal of Computational and Applied Mathematics</i> , 2015, 282, 251-261.	2.0	20
21	A Petrov-Galerkin finite element method for variable-coefficient fractional diffusion equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 290, 45-56.	6.6	46
22	Inhomogeneous Dirichlet Boundary-Value Problems of Space-Fractional Diffusion Equations and their Finite Element Approximations. <i>SIAM Journal on Numerical Analysis</i> , 2014, 52, 1292-1310.	2.3	65
23	An adaptive algorithm for the Thomas-Fermi equation. <i>Numerical Algorithms</i> , 2012, 59, 359-372.	1.9	13
24	New Variational Formulations for Level Set Evolution Without Reinitialization with Applications to Image Segmentation. <i>Journal of Mathematical Imaging and Vision</i> , 2011, 41, 194-209.	1.3	25
25	Shape and topology optimization for elliptic boundary value problems using a piecewise constant level set method. <i>Applied Numerical Mathematics</i> , 2011, 61, 752-767.	2.1	20
26	A variational binary level-set method for elliptic shape optimization problems. <i>International Journal of Computer Mathematics</i> , 2011, 88, 3026-3045.	1.8	4
27	Variational piecewise constant level set methods for shape optimization of a two-density drum. <i>Journal of Computational Physics</i> , 2010, 229, 5062-5089.	3.8	24
28	Binary level set methods for topology and shape optimization of a two-density inhomogeneous drum. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 2970-2986.	6.6	20
29	Numerical solution of the Falkner-Skan equation based on quasilinearization. <i>Applied Mathematics and Computation</i> , 2009, 215, 2472-2485.	2.2	16