Martin Bauer

List of Publications by Year in descending order

48 papers	735 citations	623734 14 h-index	552781 26 g-index
48 all docs	48 docs citations	48 times ranked	252 citing authors

#	Article	IF	Citations
1	Smooth Perturbations of the Functional Calculus and Applications to Riemannian Geometry on Spaces of Metrics. Communications in Mathematical Physics, 2022, 389, 899-931.	2.2	3
2	A New Variational Model for Shape Graph Registration with Partial Matching Constraints. SIAM Journal on Imaging Sciences, 2022, 15, 261-292.	2.2	4
3	A Geometric View on the Generalized Proudmanâ€"Johnson and r-Hunterâ€"Saxton Equations. Journal of Nonlinear Science, 2022, 32, 1.	2.1	2
4	The Square Root Normal Field Distance and Unbalanced Optimal Transport. Applied Mathematics and Optimization, 2022, 85, 1.	1.6	9
5	A diffeomorphism-invariant metric on the space of vector-valued one-forms. Pure and Applied Mathematics Quarterly, 2021, 17, 141-183.	0.4	1
6	Structural Connectome Atlas Construction in the Space of Riemannian Metrics. Lecture Notes in Computer Science, 2021, , 291-303.	1.3	5
7	Intrinsic Riemannian Metrics on Spaces of Curves: Theory and Computation. , 2021, , 1-35.		1
8	Can we run to infinity? The diameter of the diffeomorphism group with respect to right-invariant Sobolev metrics. Calculus of Variations and Partial Differential Equations, 2021, 60, 1.	1.7	3
9	A Numerical Framework for Elastic Surface Matching, Comparison, and Interpolation. International Journal of Computer Vision, 2021, 129, 2425-2444.	15.6	13
10	Supervised deep learning of elastic SRV distances on the shape space of curves. , 2021, , .		2
11	Geometric and topological approaches to shape variation in <i>Ginkgo</i> leaves. Royal Society Open Science, 2021, 8, 210978.	2.4	2
12	Vanishing Distance Phenomena and the Geometric Approach to SQG. Archive for Rational Mechanics and Analysis, 2020, 235, 1445-1466.	2.4	13
13	Diffeomorphic density registration. , 2020, , 577-603.		1
14	Well-posedness of the EPDiff equation with a pseudo-differential inertia operator. Journal of Differential Equations, 2020, 269, 288-325.	2.2	4
15	Simplifying Transformations for a Family of Elastic Metrics on the Space of Surfaces. , 2020, , .		2
16	Shape Analysis of Surfaces Using General Elastic Metrics. Journal of Mathematical Imaging and Vision, 2020, 62, 1087-1106.	1.3	12
17	Fractional Sobolev metrics on spaces of immersions. Calculus of Variations and Partial Differential Equations, 2020, 59, 1.	1.7	9
18	Semi-invariant Riemannian metrics in hydrodynamics. Calculus of Variations and Partial Differential Equations, 2020, 59, 1.	1.7	6

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19	Geodesic completeness of the $H^{3/2}$ metric on $\mathrm{Diff}(S^{1})$. Monatshefte Fur Mathematik, 2020, 193, 233-245.	0.9	1
20	An inexact matching approach for the comparison of plane curves with general elastic metrics. , 2019, , .		3
21	A relaxed approach for curve matching with elastic metrics. ESAIM - Control, Optimisation and Calculus of Variations, 2019, 25, 72.	1.3	19
22	Inexact Elastic Shape Matching in the Square Root Normal Field Framework. Lecture Notes in Computer Science, 2019, , 13-20.	1.3	7
23	Fractional Sobolev metrics on spaces of immersed curves. Calculus of Variations and Partial Differential Equations, 2018, 57, 1.	1.7	3
24	Comparing curves in homogeneous spaces. Differential Geometry and Its Applications, 2018, 60, 9-32.	0.5	8
25	On geodesic completeness for Riemannian metrics on smooth probability densities. Calculus of Variations and Partial Differential Equations, 2017, 56, 1.	1.7	2
26	A Numerical Framework for Sobolev Metrics on the Space of Curves. SIAM Journal on Imaging Sciences, 2017, 10, 47-73.	2.2	29
27	The Square Root Velocity Framework for Curves in a Homogeneous Space. , 2017, , .		5
28	Landmark-guided elastic shape analysis of human character motions. Inverse Problems and Imaging, 2017, 11, 601-621.	1.1	12
29	Uniqueness of the Fisher–Rao metric on the space of smooth densities. Bulletin of the London Mathematical Society, 2016, 48, 499-506.	0.8	48
30	Riemannian geometry of the space of volume preserving immersions. Differential Geometry and Its Applications, 2016, 49, 23-42.	0.5	5
31	Geometric investigations of a vorticity model equation. Journal of Differential Equations, 2016, 260, 478-516.	2.2	19
32	Why Use Sobolev Metrics on the Space of Curves. , 2016, , 233-255.		14
33	Optical Flow on Moving Manifolds. SIAM Journal on Imaging Sciences, 2015, 8, 484-512.	2.2	2
34	Diffeomorphic Density Matching by Optimal Information Transport. SIAM Journal on Imaging Sciences, 2015, 8, 1718-1751.	2.2	23
35	Metrics on spaces of immersions where horizontality equals normality. Differential Geometry and Its Applications, 2015, 39, 166-183.	0.5	9
36	Local and global well-posedness of the fractional order EPDiff equation onRd. Journal of Differential Equations, 2015, 258, 2010-2053.	2.2	20

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37	Overview of the Geometries of Shape Spaces and Diffeomorphism Groups. Journal of Mathematical Imaging and Vision, 2014, 50, 60-97.	1.3	106
38	Homogeneous Sobolev Metric of Order One on Diffeomorphism Groups on Real Line. Journal of Nonlinear Science, 2014, 24, 769-808.	2.1	15
39	Constructing reparameterization invariant metrics on spaces of plane curves. Differential Geometry and Its Applications, 2014, 34, 139-165.	0.5	52
40	R-transforms for Sobolev H^2-metrics on spaces of plane curves. Geometry Imaging and Computing, 2014, 1, 1-56.	0.8	12
41	Geodesic distance for right invariant Sobolev metrics of fractional order on the diffeomorphism group. Annals of Global Analysis and Geometry, 2013, 44, 5-21.	0.6	24
42	Geodesic distance for right invariant Sobolev metrics of fractional order on the diffeomorphism group. II. Annals of Global Analysis and Geometry, 2013, 44, 361-368.	0.6	14
43	Sobolev Metrics on the Manifold of All Riemannian Metrics. Journal of Differential Geometry, 2013, 94, .	1.1	15
44	Almost Local Metrics on Shape Space of Hypersurfaces in n-Space. SIAM Journal on Imaging Sciences, 2012, 5, 244-310.	2.2	32
45	Curvature weighted metrics on shape space of hypersurfaces in n-space. Differential Geometry and Its Applications, 2012, 30, 33-41.	0.5	11
46	Vanishing geodesic distance for the Riemannian metric with geodesic equation the KdV-equation. Annals of Global Analysis and Geometry, 2012, 41, 461-472.	0.6	33
47	Sobolev metrics on shape space, II: Weighted Sobolev metrics and almost local metrics. Journal of Geometric Mechanics, 2012, 4, 365-383.	0.8	27
48	Sobolev metrics on shape space of surfaces. Journal of Geometric Mechanics, 2011, 3, 389-438.	0.8	73