

Maher Moakher

List of Publications by Year in descending order

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45
papers

3,058
citations

304368

22
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253896

43
g-index

46
all docs

46
docs citations

46
times ranked

2903
citing authors

#	ARTICLE	IF	CITATIONS
1	Conformational analysis of nucleic acids revisited: Curves+. Nucleic Acids Research, 2009, 37, 5917-5929.	6.5	674
2	A Differential Geometric Approach to the Geometric Mean of Symmetric Positive-Definite Matrices. SIAM Journal on Matrix Analysis and Applications, 2005, 26, 735-747.	0.7	535
3	Means and Averaging in the Group of Rotations. SIAM Journal on Matrix Analysis and Applications, 2002, 24, 1-16.	0.7	339
4	The Closest Elastic Tensor of Arbitrary Symmetry to an Elasticity Tensor of Lower Symmetry. Journal of Elasticity, 2006, 85, 215-263.	0.9	193
5	Experimentally validated computations of flow, mixing and segregation of non-cohesive grains in 3D tumbling blenders. Powder Technology, 2000, 109, 58-71.	2.1	174
6	A rigorous framework for diffusion tensor calculus. Magnetic Resonance in Medicine, 2005, 53, 221-225.	1.9	163
7	On the Averaging of Symmetric Positive-Definite Tensors. Journal of Elasticity, 2006, 82, 273-296.	0.9	139
8	The Riemannian Geometry of the Space of Positive-Definite Matrices and Its Application to the Regularization of Positive-Definite Matrix-Valued Data. Journal of Mathematical Imaging and Vision, 2011, 40, 171-187.	0.8	81
9	Symmetric Positive-Definite Matrices: From Geometry to Applications and Visualization. Mathematics and Visualization, 2006, , 285-298.	0.4	73
10	On the parameterization of rigid base and basepair models of DNA from molecular dynamics simulations. Physical Chemistry Chemical Physics, 2009, 11, 10565.	1.3	65
11	Means of Hermitian positive-definite matrices based on the log-determinant $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \frac{1}{n} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -divergence function. Linear Algebra and Its Applications, 2012, 436, 1872-1889.	0.4	57
12	Simulation of flow and mixing of particles in a rotating and rocking cylinder. AIChE Journal, 1998, 44, 1266-1276.	1.8	50
13	A measure of bending in nucleic acids structures applied to A-tract DNA. Nucleic Acids Research, 2010, 38, 3414-3422.	6.5	48
14	Stability of cylindrical bodies in the theory of surface diffusion. Physica D: Nonlinear Phenomena, 1995, 89, 123-135.	1.3	44
15	Space-Time Finite Element Methods for Surface Diffusion with Applications to the Theory of the Stability of Cylinders. SIAM Journal of Scientific Computing, 1996, 17, 1434-1448.	1.3	43
16	Fourth-order cartesian tensors: old and new facts, notions and applications. Quarterly Journal of Mechanics and Applied Mathematics, 2008, 61, 181-203.	0.5	42
17	Modeling and numerical treatment of elastic rods with frictionless self-contact. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3751-3764.	3.4	35
18	A stabilized Lagrange multiplier method for the enriched finite-element approximation of contact problems of cracked elastic bodies. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 813-839.	0.8	35

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19	A Double-Strand Elastic Rod Theory. Archive for Rational Mechanics and Analysis, 2005, 177, 53-91.	1.1	33
20	Chaotic granular mixing. Chaos, 1999, 9, 611-620.	1.0	31
21	Approximate Joint Diagonalization and Geometric Mean of Symmetric Positive Definite Matrices. PLoS ONE, 2015, 10, e0121423.	1.1	27
22	Stability of elastic rods with self-contact. Computer Methods in Applied Mechanics and Engineering, 2014, 279, 227-246.	3.4	23
23	A Nash-game approach to joint image restoration and segmentation. Applied Mathematical Modelling, 2014, 38, 3038-3053.	2.2	19
24	High-order anisotropic diffusion operators in spaces of variable exponents and application to image inpainting and restoration problems. Nonlinear Analysis: Real World Applications, 2019, 47, 251-271.	0.9	13
25	Ternary Quartic approach for positive 4th order diffusion tensors revisited. , 2009, ,		12
26	Bhattacharyya median of symmetric positive-definite matrices and application to the denoising of diffusion-tensor fields. , 2013, , 1227-1230.		10
27	Diagonality measures of Hermitian positive-definite matrices with application to the approximate joint diagonalization problem. Linear Algebra and Its Applications, 2017, 528, 290-320.	0.4	10
28	Similarity solutions in the theory of curvature driven diffusion along planar curves: I. Symmetric curves expanding in time. Physica D: Nonlinear Phenomena, 1998, 121, 263-274.	1.3	9
29	A local projection stabilization of fictitious domain method for elliptic boundary value problems. Applied Numerical Mathematics, 2014, 76, 60-75.	1.2	9
30	A multiscale fourth-order model for the image inpainting and low-dimensional sets recovery. Mathematical Methods in the Applied Sciences, 2017, 40, 3637-3650.	1.2	9
31	Riemannian Curvature-Driven Flows for Tensor-Valued Data. , 2007, , 592-602.		9
32	Numerical convergence and stability of mixed formulation with X-FEM cut-off. European Journal of Computational Mechanics, 2012, 21, 160-173.	0.6	7
33	A nonlinear fourth-order PDE for image denoising in Sobolev spaces with variable exponents and its numerical algorithm. Computational and Applied Mathematics, 2021, 40, 1.	1.0	7
34	A stabilized Lagrange multiplier method for the enriched finite-element approximation of Tresca contact problems of cracked elastic bodies. Computer Methods in Applied Mechanics and Engineering, 2014, 270, 178-200.	3.4	6
35	Fiber Orientation Distribution Functions and Orientation Tensors for Different Material Symmetries. Mathematics and Visualization, 2015, , 37-71.	0.4	6
36	The Cauchy problem for a nonlinear elliptic equation: Nash-game approach and application to image inpainting. Inverse Problems and Imaging, 2015, 9, 853-874.	0.6	6

#	ARTICLE	IF	CITATIONS
37	Blind image deconvolution via Hankel based method for computing the GCD of polynomials. Mathematics and Computers in Simulation, 2018, 144, 138-152.	2.4	4
38	Divergence Measures and Means of Symmetric Positive-Definite Matrices. Mathematics and Visualization, 2012, , 307-321.	0.4	3
39	The Algebra of Fourth-Order Tensors with Application to Diffusion MRI. Mathematics and Visualization, 2009, , 57-80.	0.4	3
40	A Slepian framework for the inverse problem of equivalent gravitational potential generated by discrete point masses. Inverse Problems in Science and Engineering, 2015, 23, 331-350.	1.2	2
41	The derivation of homogenized diffusion kurtosis models for diffusion MRI. Journal of Magnetic Resonance, 2019, 298, 48-57.	1.2	2
42	Noise removal and edge detection in ultrasound images by the topological gradient method. New Trends in Mathematical Sciences, 2019, 4, 421-440.	0.1	2
43	An algebraic condition and an algorithm for the internal contact between two ellipsoids. Engineering Computations, 2009, 26, 635-644.	0.7	1
44	Multi-Scale Asymptotic Expansion for a Small Inclusion in Elastic Media. Journal of Elasticity, 2018, 131, 207-237.	0.9	1
45	Geometries on the cone of positive-definite matrices derived from the power potential and their relation to the power means. Linear Algebra and Its Applications, 2022, 638, 80-109.	0.4	1