Maher Moakher

List of Publications by Year
in descending order

45 papers	3,058 citations	346980 22 h-index	286692 43 g-index
46 all docs	46 docs citations	46 times ranked	3320 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	The derivation of homogenized diffusion kurtosis models for diffusion MRI. Journal of Magnetic Resonance, 2019, 298, 48-57.	1.2	2
5	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
6	Multi-Scale Asymptotic Expansion for a Small Inclusion in Elastic Media. Journal of Elasticity, 2018, 131, 207-237.	0.9	1
7	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
8	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
9	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
10	Approximate Joint Diagonalization and Geometric Mean of Symmetric Positive Definite Matrices. PLoS ONE, 2015, 10, e0121423.	1.1	27
11	Fiber Orientation Distribution Functions and Orientation Tensors for Different Material Symmetries. Mathematics and Visualization, 2015, , 37-71.	0.4	6
12	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
13	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
14	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
15	A Nash-game approach to joint image restoration and segmentation. Applied Mathematical Modelling, 2014, 38, 3038-3053.	2.2	19
16	Stability of elastic rods with self-contact. Computer Methods in Applied Mechanics and Engineering, 2014, 279, 227-246.	3.4	23
17	A local projection stabilization of fictitious domain method for elliptic boundary value problems. Applied Numerical Mathematics, 2014, 76, 60-75.	1.2	9
18	Bhattacharyya median of symmetric positive-definite matrices and application to the denoising of diffusion-tensor fields. , 2013, , 1227-1230.		10

#	ARTICLE	IF	CITATIONS
19	Numerical convergence and stability of mixed formulation with X-FEM cut-off. European Journal of Computational Mechanics, 2012, 21, 160-173.	0.6	7
20	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
21	Divergence Measures and Means of Symmetric Positive-Definite Matrices. Mathematics and Visualization, 2012, , 307-321.	0.4	3
22	Means of Hermitian positive-definite matrices based on the log-determinant <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow></mml:math>-divergence function. Linear Algebra and Its Applications, 2012, 436, 1872-1889.	0.4	57
23	The Riemannian Geometry of the Space of Positive-Definite Matrices and Its Application to the Regularization ofÂPositive-Definite Matrix-Valued Data. Journal of Mathematical Imaging and Vision, 2011, 40, 171-187.	0.8	81
24	A measure of bending in nucleic acids structures applied to A-tract DNA. Nucleic Acids Research, 2010, 38, 3414-3422.	6.5	48
25	Ternary Quartic approach for positive 4th order diffusion tensors revisited. , 2009, , .		12
26	Conformational analysis of nucleic acids revisited: Curves+. Nucleic Acids Research, 2009, 37, 5917-5929.	6.5	674
27	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
28	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
29	An algebraic condition and an algorithm for the internal contact between two ellipsoids. Engineering Computations, 2009, 26, 635-644.	0.7	1
30	The Algebra of Fourth-Order Tensors with Application to Diffusion MRI. Mathematics and Visualization, 2009, , 57-80.	0.4	3
31	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
32	Riemannian Curvature-Driven Flows for Tensor-Valued Data. , 2007, , 592-602.		9
33	On the Averaging of Symmetric Positive-Definite Tensors. Journal of Elasticity, 2006, 82, 273-296.	0.9	139
34	The Closest Elastic Tensor of Arbitrary Symmetry to an Elasticity Tensor of Lower Symmetry. Journal of Elasticity, 2006, 85, 215-263.	0.9	193
35	Symmetric Positive-Definite Matrices: From Geometry to Applications and Visualization. Mathematics and Visualization, 2006, , 285-298.	0.4	73
36	A rigorous framework for diffusion tensor calculus. Magnetic Resonance in Medicine, 2005, 53, 221-225.	1.9	163

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37	A Double-Strand Elastic Rod Theory. Archive for Rational Mechanics and Analysis, 2005, 177, 53-91.	1.1	33
38	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
39	Means and Averaging in the Group of Rotations. SIAM Journal on Matrix Analysis and Applications, 2002, 24, 1-16.	0.7	339
40	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
41	Chaotic granular mixing. Chaos, 1999, 9, 611-620.	1.0	31
42	Simulation of flow and mixing of particles in a rotating and rocking cylinder. AICHE Journal, 1998, 44, 1266-1276.	1.8	50
43	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
44	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
45	Stability of cylindrical bodies in the theory of surface diffusion. Physica D: Nonlinear Phenomena, 1995, 89, 123-135.	1.3	44