

# Hossein Rahami

## List of Publications by Year in descending order

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Version: 2024-02-01

56  
papers

851  
citations

471509

17  
h-index

526287

27  
g-index

57  
all docs

57  
docs citations

57  
times ranked

373  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sizing, geometry and topology optimization of trusses via force method and genetic algorithm. <i>Engineering Structures</i> , 2008, 30, 2360-2369.	5.3	147
2	Block diagonalization of adjacency and Laplacian matrices for graph product; applications in structural mechanics. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 68, 33-63.	2.8	51
3	An efficient method for decomposition of regular structures using graph products. <i>International Journal for Numerical Methods in Engineering</i> , 2004, 61, 1797-1808.	2.8	50
4	Block circulant matrices and applications in free vibration analysis of cyclically repetitive structures. <i>Acta Mechanica</i> , 2011, 217, 51-62.	2.1	43
5	Nonlinear analysis and optimal design of structures via force method and genetic algorithm. <i>Computers and Structures</i> , 2006, 84, 770-778.	4.4	39
6	Analysis, design and optimization of structures using force method and genetic algorithm. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 65, 1570-1584.	2.8	37
7	An efficient analysis of repetitive structures generated by graph products. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 84, 108-126.	2.8	33
8	Compound matrix block diagonalization for efficient solution of eigenproblems in structural mechanics. <i>Acta Mechanica</i> , 2007, 188, 155-166.	2.1	31
9	Analysis of structures convertible to repeated structures using graph products. <i>Computers and Structures</i> , 2013, 125, 153-163.	4.4	24
10	Vibration analysis of regular structures by graph products: Cable networks. <i>Computers and Structures</i> , 2010, 88, 588-601.	4.4	23
11	Improved group theoretic method using graph products for the analysis of symmetric-regular structures. <i>Acta Mechanica</i> , 2010, 210, 265-289.	2.1	22
12	A unified method for eigendecomposition of graph products. <i>Communications in Numerical Methods in Engineering</i> , 2005, 21, 377-388.	1.3	21
13	Factorization for efficient solution of eigenproblems of adjacency and Laplacian matrices for graph products. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 75, 58-82.	2.8	21
14	New developments in the optimal analysis of regular and near-regular structures: decomposition, graph products, force method. <i>Acta Mechanica</i> , 2015, 226, 665-681.	2.1	20
15	A new spectral method for nodal ordering of regular space structures. <i>Finite Elements in Analysis and Design</i> , 2004, 40, 1931-1945.	3.2	18
16	Developing an algorithm for reconstruction blocky systems in discontinuous media: three-dimensional analysis. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2013, 37, 661-684.	3.3	18
17	Seismic design of steel frames using multi-objective optimization. <i>Structural Engineering and Mechanics</i> , 2013, 45, 211-232.	1.0	18
18	Tri-diagonal and penta-diagonal block matrices for efficient eigensolutions of problems in structural mechanics. <i>Acta Mechanica</i> , 2007, 192, 77-87.	2.1	17

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19	Determination of Hysteretic Behavior of Steel End-Plate Beam-to-Column Connection with Mechanical and Neural Network Modeling. <i>Arabian Journal for Science and Engineering</i> , 2014, 39, 7661-7671.	1.1	15
20	A fast-convergent approach for damage assessment using CMA-ES optimization algorithm and modal parameters. <i>Journal of Civil Structural Health Monitoring</i> , 2020, 10, 497-511.	3.9	15
21	Analysis of near-regular structures using the force method. <i>Engineering Computations</i> , 2012, 30, 21-48.	1.4	14
22	New development of artificial record generation by wavelet theory. <i>Structural Engineering and Mechanics</i> , 2006, 22, 185-195.	1.0	14
23	New canonical forms for analytical solution of problems in structural mechanics. <i>Communications in Numerical Methods in Engineering</i> , 2005, 21, 499-513.	1.3	13
24	Topology and graph products; eigenproblems in optimal structural analysis. <i>Communications in Numerical Methods in Engineering</i> , 2007, 24, 929-945.	1.3	12
25	Analysis of Irregular Structures Composed of Regular and Irregular Parts Using Graph Products. <i>Journal of Computing in Civil Engineering</i> , 2014, 28, .	4.7	12
26	Eigenvalues of the adjacency and Laplacian matrices for modified regular structural models. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010, 26, 1836-1855.	2.1	9
27	Static and modal analyses of structures with different repeated patterns. <i>Advances in Engineering Software</i> , 2012, 51, 1-9.	3.8	9
28	A numerical solution for Laplace and Poisson's equations using geometrical transformation and graph products. <i>Applied Mathematical Modelling</i> , 2016, 40, 7768-7783.	4.2	9
29	State-of-the-Art Solution of Capacitance Resistance Model by Considering Dynamic Time Constants as a Realistic Assumption. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2018, 140, .	2.3	9
30	Swift Analysis for Size and Geometry Optimization of Structures. <i>Advances in Structural Engineering</i> , 2015, 18, 365-380.	2.4	8
31	Analysis and reanalysis of mechanical systems: concept of global near-regularity. <i>Acta Mechanica</i> , 2017, 228, 1445-1456.	2.1	8
32	Developing an algorithm for reconstruction of blocky systems in discontinuous media: two-dimensional analysis. <i>Geomechanics and Geoengineering</i> , 2011, 6, 171-183.	1.8	7
33	Analysis of Regular Structures with Member Irregularity Using the Equilibrium Equations and the Singular Value Decomposition. <i>Advances in Structural Engineering</i> , 2013, 16, 823-843.	2.4	7
34	Structural Health Monitoring for Multi-story Shear Frames Based on Signal Processing Approach. <i>Iranian Journal of Science and Technology - Transactions of Civil Engineering</i> , 2018, 42, 287-303.	1.9	7
35	Truss optimization using eigenvectors of the covariance matrix. <i>Engineering With Computers</i> , 2021, 37, 2207.	6.1	7
36	Efficient finite element solution of regular and near-regular systems using graph products. <i>Acta Mechanica</i> , 2015, 226, 2393-2405.	2.1	5

#	ARTICLE	IF	CITATIONS
37	A mesh free method using rectangular pre-solved domains using Kronecker products. <i>Mechanics Based Design of Structures and Machines</i> , 2017, 45, 92-110.	4.7	5
38	Forced vibration of symmetric structures. <i>Communications in Numerical Methods in Engineering</i> , 2008, 24, 1393-1406.	1.3	4
39	An efficient finite element solution using a large pre-solved regular element. <i>Acta Mechanica</i> , 2016, 227, 1331-1349.	2.1	4
40	Analysis of repetitive and near-repetitive structures by transformation to equivalent circulant structures. <i>Engineering Computations</i> , 2017, 34, 343-363.	1.4	4
41	Static and Dynamic Analysis of Cracked Concrete Beams Using Experimental Study and Finite Element Analysis. <i>Periodica Polytechnica: Civil Engineering</i> , 0, , .	0.6	4
42	Special decompositions for eigenproblems in structural mechanics. <i>Communications in Numerical Methods in Engineering</i> , 2006, 22, 943-953.	1.3	3
43	Algebraic Graph Theory for Sparse Flexibility Matrices. <i>Mathematical Modelling and Algorithms</i> , 2003, 2, 171-182.	0.5	2
44	Geometrically nonlinear analysis of circulant structures using an efficient eigensolution method. <i>Acta Mechanica</i> , 2012, 223, 2167-2182.	2.1	2
45	An efficient method for seismic analysis of structures. <i>Engineering Computations</i> , 2015, 32, 1708-1721.	1.4	2
46	Determining Structural Resonance Frequency via Low-Cost Micro-Electromechanical Systems. <i>Iranian Journal of Science and Technology - Transactions of Civil Engineering</i> , 2019, 43, 583-590.	1.9	2
47	An Efficient Algorithm for Embedding Nonplanar Graphs in Planes. <i>Mathematical Modelling and Algorithms</i> , 2002, 1, 257-268.	0.5	1
48	Analysis of structures transformable to circulant form using U-transformation and Kronecker products. <i>Acta Mechanica</i> , 2013, 224, 1625-1642.	2.1	1
49	A Numerical Method for Eigensolution of Near-Regular Structural and Mechanical Systems. <i>Periodica Polytechnica: Civil Engineering</i> , 2016, 60, 247-255.	0.6	1
50	Analytical Solution of Laplace and Poisson Equations Using Conformal Mapping and Kronecker Products. <i>International Journal of Civil Engineering</i> , 2016, 14, 369-377.	2.0	1
51	Analysis of Shear Wall Systems Using Plane Stress Elements. <i>Iranian Journal of Science and Technology - Transactions of Civil Engineering</i> , 2020, 44, 27-34.	1.9	1
52	A heuristic swarm-based optimization method using multi-variate normal distributions with self-adaptive variance matrices. <i>Structures</i> , 2022, 36, 372-391.	3.6	1
53	Static Analysis of Near-Regular Skeletal Structures: Additional Nodes. <i>Studies in Systems, Decision and Control</i> , 2020, , 87-122.	1.0	0
54	Static Analysis of Near-Regular Skeletal Structures: Additional Members. <i>Studies in Systems, Decision and Control</i> , 2020, , 43-86.	1.0	0

#	ARTICLE	IF	CITATIONS
55	Basic Concepts and Definitions of Symmetry and Regularity. Studies in Systems, Decision and Control, 2020, , 11-41.	1.0	0
56	Global Near-Regular Mechanical Systems. Studies in Systems, Decision and Control, 2020, , 247-263.	1.0	0