

Oren Lavan

List of Publications by Year in descending order

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35
papers

1,002
citations

430754

18
h-index

434063

31
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38
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38
docs citations

38
times ranked

401
citing authors

#	ARTICLE	IF	CITATIONS
1	Topology optimization of multiple-rocking concentrically braced frames subjected to earthquakes. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	1.7	6
2	Bi-tuned semi-active TMDs: Multi-hazard design for tall buildings using gradient-based optimization. <i>Structural Control and Health Monitoring</i> , 2022, 29, .	1.9	4
3	Optimization-based seismic design of steel moment-resisting frames with nonlinear viscous dampers. <i>Structural Control and Health Monitoring</i> , 2021, 28, .	1.9	29
4	Mixed Lagrangian formalism for dynamic analysis of self-centering systems. <i>Earthquake Engineering and Structural Dynamics</i> , 2021, 50, 998-1019.	2.5	8
5	Performance-based seismic retrofitting of frame structures using negative stiffness devices and fluid viscous dampers via optimization. <i>Earthquake Engineering and Structural Dynamics</i> , 2021, 50, 3116-3137.	2.5	15
6	Gradient-based multi-hazard optimization of MTMDs for tall buildings. <i>Computers and Structures</i> , 2021, 249, 106503.	2.4	12
7	Seismic design of multiple-rocking systems: A gradient-based optimization approach. <i>Earthquake Engineering and Structural Dynamics</i> , 2021, 50, 3460-3482.	2.5	10
8	Multi-objective loss-based optimization of viscous dampers for seismic retrofitting of irregular structures. <i>Soil Dynamics and Earthquake Engineering</i> , 2020, 129, 105765.	1.9	13
9	Adjoint sensitivity analysis and optimization of transient problems using the mixed Lagrangian formalism as a time integration scheme. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 619-634.	1.7	9
10	Deformation Based Seismic Design of Generally Irregular 3D RC Frame Buildings for Minimized Total Steel Volume. <i>Geotechnical, Geological and Earthquake Engineering</i> , 2020, , 39-46.	0.1	0
11	Optimizing Skyscrapers' Spatial Integrated DSF-MTMD System Under Wind Loads. , 2019, , .		0
12	Adjoint sensitivity analysis and optimization of hysteretic dynamic systems with nonlinear viscous dampers. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 2273-2289.	1.7	30
13	Optimization-based minimum-cost seismic retrofitting of hysteretic frames with nonlinear fluid viscous dampers. <i>Earthquake Engineering and Structural Dynamics</i> , 2018, 47, 2985-3005.	2.5	38
14	Topology and Sizing Optimization of Nonlinear Viscous Dampers for the Minimum-Cost Seismic Retrofitting of 3-D Frame Structures. , 2017, , .		0
15	Minimum-cost optimization of nonlinear fluid viscous dampers and their supporting members for seismic retrofitting. <i>Earthquake Engineering and Structural Dynamics</i> , 2017, 46, 1941-1961.	2.5	61
16	Multi-objective optimal design of tuned mass dampers. <i>Structural Control and Health Monitoring</i> , 2017, 24, e2008.	1.9	34
17	Efficient Seismic Design of 3D Asymmetric and Setback RC Frame Buildings for Drift and Strain Limitation. <i>Journal of Structural Engineering</i> , 2017, 143, .	1.7	12
18	Towards realistic minimum-cost optimization of viscous fluid dampers for seismic retrofitting. <i>Bulletin of Earthquake Engineering</i> , 2016, 14, 971-998.	2.3	34

#	ARTICLE	IF	CITATIONS
19	Seismic analysis and design of viscously coupled walls or trusses with discrete locations for viscous dampers. , 2015, , .		1
20	A methodology for the integrated seismic design of nonlinear buildings with supplemental damping. Structural Control and Health Monitoring, 2015, 22, 484-499.	1.9	32
21	Simultaneous topology and sizing optimization of viscous dampers in seismic retrofitting of 3D irregular frame structures. Earthquake Engineering and Structural Dynamics, 2014, 43, 1325-1342.	2.5	48
22	Time-Integrated Mixed Lagrangian Formulation for Time-Discontinuous or Impulsive Loadings and Responses of Structures. Journal of Engineering Mechanics - ASCE, 2013, 139, 1239-1248.	1.6	2
23	Analysis of Collapse of Irregular Tall Structures Using Mixed Lagrangian Formulation. Geotechnical, Geological and Earthquake Engineering, 2013, , 235-250.	0.1	1
24	On the efficiency of viscous dampers in reducing various seismic responses of wall structures. Earthquake Engineering and Structural Dynamics, 2012, 41, 1673-1692.	2.5	25
25	Dynamic Analysis of Gap Closing and Contact in the Mixed Lagrangian Framework: Toward Progressive Collapse Prediction. Journal of Engineering Mechanics - ASCE, 2010, 136, 979-986.	1.6	23
26	Closure to "Quantitative Comparison of Optimization Approaches for the Design of Supplemental Damping in Earthquake Engineering Practice" by Robert Levy and Oren Lavan. Journal of Structural Engineering, 2010, 136, 1183-1184.	1.7	1
27	Multi-Objective Evolutionary Seismic Design with Passive Energy Dissipation Systems. Journal of Earthquake Engineering, 2009, 13, 758-790.	1.4	120
28	Simple Iterative Use of Lyapunov's Solution for the Linear Optimal Seismic Design of Passive Devices in Framed Buildings. Journal of Earthquake Engineering, 2009, 13, 650-666.	1.4	39
29	Quantitative Comparison of Optimization Approaches for the Design of Supplemental Damping in Earthquake Engineering Practice. Journal of Structural Engineering, 2009, 135, 321-325.	1.7	21
30	Design of passive systems for control of inelastic structures. Earthquake Engineering and Structural Dynamics, 2009, 38, 783-804.	2.5	49
31	Numerical collapse simulation of large-scale structural systems using an optimization-based algorithm. Earthquake Engineering and Structural Dynamics, 2009, 38, 655-677.	2.5	62
32	Optimal design of supplemental viscous dampers for linear framed structures. Earthquake Engineering and Structural Dynamics, 2006, 35, 337-356.	2.5	87
33	OPTIMAL PERIPHERAL DRIFT CONTROL OF 3D IRREGULAR FRAMED STRUCTURES USING SUPPLEMENTAL VISCOUS DAMPERS. Journal of Earthquake Engineering, 2006, 10, 903-923.	1.4	61
34	Optimal design of supplemental viscous dampers for irregular shear-frames in the presence of yielding. Earthquake Engineering and Structural Dynamics, 2005, 34, 889-907.	2.5	100
35	Seismic Design of Friction-Damped Braced Frames Based on Historical Records. Earthquake Spectra, 2005, 21, 761-778.	1.6	12