

# Oded Amir

## List of Publications by Year in descending order

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45  
papers

1,568  
citations

257357

24  
h-index

302012

39  
g-index

46  
all docs

46  
docs citations

46  
times ranked

1023  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D printing of a post-tensioned concrete girder designed by topology optimization. Automation in Construction, 2020, 112, 103084.	4.8	165
2	On multigrid-CG for efficient topology optimization. Structural and Multidisciplinary Optimization, 2014, 49, 815-829.	1.7	128
3	Reinforcement layout design for concrete structures based on continuum damage and truss topology optimization. Structural and Multidisciplinary Optimization, 2013, 47, 157-174.	1.7	93
4	A topology optimization procedure for reinforced concrete structures. Computers and Structures, 2013, 114-115, 46-58.	2.4	85
5	Conceptual design of reinforced concrete structures using topology optimization with elastoplastic material modeling. International Journal for Numerical Methods in Engineering, 2012, 90, 1578-1597.	1.5	82
6	Approximate reanalysis in topology optimization. International Journal for Numerical Methods in Engineering, 2009, 78, 1474-1491.	1.5	81
7	Efficient use of iterative solvers in nested topology optimization. Structural and Multidisciplinary Optimization, 2010, 42, 55-72.	1.7	68
8	Minimum-cost optimization of nonlinear fluid viscous dampers and their supporting members for seismic retrofitting. Earthquake Engineering and Structural Dynamics, 2017, 46, 1941-1961.	2.5	61
9	Efficient reanalysis techniques for robust topology optimization. Computer Methods in Applied Mechanics and Engineering, 2012, 245-246, 217-231.	3.4	50
10	On reducing computational effort in topology optimization: how far can we go?. Structural and Multidisciplinary Optimization, 2011, 44, 25-29.	1.7	48
11	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
12	Topology optimization for additive manufacturing: Accounting for overhang limitations using a virtual skeleton. Additive Manufacturing, 2017, 18, 58-73.	1.7	48
13	Topology optimization of dielectric elastomers for wide tunable band gaps. International Journal of Solids and Structures, 2018, 143, 262-273.	1.3	41
14	Optimization-based minimum-cost seismic retrofitting of hysteretic frames with nonlinear fluid viscous dampers. Earthquake Engineering and Structural Dynamics, 2018, 47, 2985-3005.	2.5	38
15	Level-set topology optimization considering nonlinear thermoelasticity. Computer Methods in Applied Mechanics and Engineering, 2020, 361, 112735.	3.4	36
16	Towards realistic minimum-cost optimization of viscous fluid dampers for seismic retrofitting. Bulletin of Earthquake Engineering, 2016, 14, 971-998.	2.3	34
17	Truss optimization with buckling considerations using geometrically nonlinear beam modeling. Computers and Structures, 2017, 192, 233-247.	2.4	34
18	Stress-constrained continuum topology optimization: a new approach based on elasto-plasticity. Structural and Multidisciplinary Optimization, 2017, 55, 1797-1818.	1.7	34

#	ARTICLE	IF	CITATIONS
19	Simultaneous shape and topology optimization of prestressed concrete beams. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 1831-1843.	1.7	34
20	Revisiting approximate reanalysis in topology optimization: on the advantages of recycled preconditioning in a minimum weight procedure. <i>Structural and Multidisciplinary Optimization</i> , 2015, 51, 41-57.	1.7	32
21	Consistent boundary conditions for PDE filter regularization in topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2020, 62, 1299-1311.	1.7	31
22	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
23	Topological interlocking in buildings: A case for the design and construction of floors. <i>Automation in Construction</i> , 2016, 72, 18-25.	4.8	29
24	Topology optimization for staged construction. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 1679-1694.	1.7	28
25	Efficient non-linear reanalysis of skeletal structures using combined approximations. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 73, 1328-1346.	1.5	22
26	Topology and shape optimization with explicit geometric constraints using a spline-based representation and a fixed grid. <i>Procedia Manufacturing</i> , 2018, 21, 189-196.	1.9	21
27	Topological interlocking in architecture: A new design method and computational tool for designing building floors. <i>International Journal of Architectural Computing</i> , 2017, 15, 107-118.	0.9	20
28	Achieving stress-constrained topological design via length scale control. <i>Structural and Multidisciplinary Optimization</i> , 2018, 58, 2053-2071.	1.7	20
29	Efficient stress-constrained topology optimization using inexact design sensitivities. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 3241-3272.	1.5	19
30	Concurrent structural optimization of buckling-resistant trusses and their initial imperfections. <i>International Journal of Solids and Structures</i> , 2019, 162, 244-258.	1.3	13
31	Mixed projection- and density-based topology optimization with applications to structural assemblies. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 687-710.	1.7	11
32	The effect of block geometry on structural behavior of topological interlocking assemblies. <i>Automation in Construction</i> , 2021, 128, 103717.	4.8	11
33	Topology optimization with precise evolving boundaries based on IGA and untrimming techniques. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 374, 113564.	3.4	10
34	Concurrent high-resolution topology optimization of structures and their supports for additive manufacturing. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 2589-2612.	1.7	9
35	Optimization of post-tensioned concrete slabs for minimum cost. <i>Engineering Structures</i> , 2022, 259, 114132.	2.6	9
36	Layout optimization of post-tensioned cables in concrete slabs. <i>Structural and Multidisciplinary Optimization</i> , 2021, 63, 1951-1974.	1.7	8

#	ARTICLE	IF	CITATIONS
37	Topology optimization for the computationally poor: efficient high resolution procedures using beam modeling. Structural and Multidisciplinary Optimization, 2019, 59, 165-184.	1.7	7
38	Structural optimization with explicit geometric constraints using a B-spline representation. Mechanics Based Design of Structures and Machines, 2020, , 1-32.	3.4	6
39	Stress-constrained topology optimization with precise and explicit geometric boundaries. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	6
40	Plastic work constrained elastoplastic topology optimization. International Journal for Numerical Methods in Engineering, 2021, 122, 4354-4377.	1.5	4
41	Optimization of plate supports using a feature mapping approach with techniques to avoid local minima. Structural and Multidisciplinary Optimization, 2022, 65, 1.	1.7	4
42	Intricate Interrelation Between Robustness and Probability in the Context of Structural Optimization. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, 2015, 1, .	0.7	3
43	Topology Optimization with Stress Constraints Using Isotropic Damage with Strain Softening. , 2018, , 991-1008.		3
44	Cost optimization of cross-laminated timber panels in one-way bending. European Journal of Wood and Wood Products, 2022, 80, 1275-1291.	1.3	2
45	Topology optimization for additive manufacturing: Accounting for overhang limitations using a virtual skeleton. , 2017, 18, 58-58.		1