Noboru Kikuchi

List of Publications by Year
in descending order

85	11,695	156536 32	182931 54
papers	citations	h-index	g-index

86	86	86	5040
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Inverse design of structure and fiber orientation by means of topology optimization with tensor field variables. Composites Part B: Engineering, 2019, 176, 107187.	5.9	47
2	General topology optimization method with continuous and discrete orientation design using isoparametric projection. International Journal for Numerical Methods in Engineering, 2015, 101, 571-605.	1.5	100
3	An efficient optimal design methodology for non-linear multibody dynamics systems with application to vehicle occupant restraint systems. International Journal of Vehicle Design, 2013, 61, 177.	0.1	1
4	Variable Screening Using Restricted Maximum Likelihood Kriging Method With Application to Gunner Joint Stiffness Variables. , 2011, , .		0
5	Efficient Sensitivity Analysis for Multibody Dynamics Systems Using an Iterative Steps Method With Application in Topology Optimization. , 2011, , .		2
6	Time Integration Incorporated Sensitivity Analysis With Generalized-Î± Method for Multibody Dynamics Systems. , 2011, , .		1
7	Topology optimization of switched reluctance motors for the desired torque profile. Structural and Multidisciplinary Optimization, 2010, 42, 783-796.	1.7	62
8	Structural Topology Optimization of Electrical Machinery to Maximize Stiffness With Body Force Distribution. IEEE Transactions on Magnetics, 2010, 46, 3790-3794.	1.2	44
9	A surface reconstruction algorithm for topology optimization. Engineering With Computers, 2006, 22, 1-10.	3.5	41
10	Multidomain Topology Optimization for Structural and Material Designs. Journal of Applied Mechanics, Transactions ASME, 2006, 73, 565-573.	1.1	34
11	ãƒˆãƒãƒã‚¸ãƒ¼è¨è¨ˆã«ã‚ˆã‚‹æ©Ÿèƒ½å‰µæˆãƒãƒ†ãƒªã‚¢ãƒ«ã‚¤ãƒ³ãƒ•ã‚©ãƒžãƒ†ã‚£ã‚¯ã‚¹. Seikei-Kakou, 2006, 18, 541-543.	0.0	0
12	Mixed shell element for seven-parameter formulation. International Journal for Numerical Methods in Engineering, 2005, 64, 95-124.	1.5	3
13	Identification of global modeshape from a few nodal eigenvectors using simple free-form deformation. Engineering With Computers, 2005, 21, 115-128.	3.5	5
14	Automated Topology Design for Electromagnetic Devices. AIP Conference Proceedings, 2004, , .	0.3	0
15	An enhanced asymptotic homogenization method of the static and dynamics of elastic composite laminates. Computers and Structures, 2004, 82, 373-382.	2.4	33
16	Topology optimization of thermally actuated compliant mechanisms considering time-transient effect. Finite Elements in Analysis and Design, 2004, 40, 1317-1331.	1.7	59
17	A novel method for biomaterial scaffold internal architecture design to match bone elastic properties with desired porosity. Journal of Biomechanics, 2004, 37, 623-636.	0.9	335
18	Function-Oriented Material Design for Next-Generation Ground Vehicles. , 2003, , 185.		4

#	Article	IF	Citations
19	OS8(4)-14(OS08W0369) Computational Optimization Methods for Designed Functional Materials. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2003, 2003, 329.	0.0	0
20	Multi-Domain Topology Optimization for Vehicle Substructure Design. , 2002, , 12.		7
21	Analysis of Stefan Problem with Level Set Method. , 2002, , .		2
22	First Order Analysis - New CAE Tools for Automotive Body Designers. , 2001, , .		44
23	Topology optimization with design-dependent loads. Finite Elements in Analysis and Design, 2001, 37, 57-70.	1.7	123
24	Optimal structural design considering flexibility. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 4457-4504.	3.4	71
25	Advances in computational design and optimization with application to MEMS. International Journal for Numerical Methods in Engineering, 2001, 52, 23-62.	1.5	68
26	Topology optimization in magnetic fields using the homogenization design method. International Journal for Numerical Methods in Engineering, 2000, 48, 1463-1479.	1.5	32
27	Simulation of the multi-scale convergence in computational homogenization approaches. International Journal of Solids and Structures, 2000, 37, 2285-2311.	1.3	459
28	Unified topology design of static and vibrating structures using multiobjective optimization. Computers and Structures, 2000, 75, 93-116.	2.4	55
29	Design analysis of composite laminate structures for light-weight armored vehicle by homogenization method. Computers and Structures, 2000, 76, 319-335.	2.4	11
30	TOPOLOGY OPTIMIZATION OF COMPOSITE MATERIAL USING THE HOMOGENIZATOIN DESIGN METHOD. Journal of Structural and Construction Engineering, 2000, 65, 79-86.	0.2	1
31	Topology optimization based on structural flexibility in the periodic loading. , 2000, , .		1
32	Topological Synthesis of Compliant Mechanisms Using Linear Beam Elements*. Mechanics Based Design of Structures and Machines, 2000, 28, 245-280.	0.6	51
33	Topology optimization in magnetic fields using the homogenization design method. , 2000, 48, 1463.		1
34	Design of piezoelectric transducers using topology optimization. Smart Materials and Structures, 1999, 8, 350-364.	1.8	140
35	Optimization methods applied to material and flextensional actuator design using the homogenization method. Computer Methods in Applied Mechanics and Engineering, 1999, 172, 241-271.	3.4	52
36	Plane harmonic wave propagation in three-dimensional composite media. Finite Elements in Analysis and Design, 1999, 33, 263-282.	1.7	5

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37	Design of piezocomposite materials and piezoelectric transducers using topology optimizationâ€”Part II. Archives of Computational Methods in Engineering, 1999, 6, 191-215.	6.0	30
38	A GENERALIZED ALGORITHM FOR MULTISCALE ANALYSIS OF HETEROGENEOUS ELASTIC-PLASTIC BODIES. Doboku Gakkai Ronbunshu, 1999, 1999, 217-229.	0.2	6
39	Design of flextensional transducers using homogenization design method. , 1999, 3667, 232.		5
40	IMPROVEMENT OF NUMERICAL INSTABILITIES IN THE TOPOLOGY OPTIMIZATION USING SLP METHOD. Journal of Structural and Construction Engineering, 1999, 64, 65-72.	0.2	1
41	Topology optimization of compliant mechanisms using the homogenization method. International Journal for Numerical Methods in Engineering, 1998, 42, 535-559.	1.5	322
42	Design optimization method for compliant mechanisms and material microstructure. Computer Methods in Applied Mechanics and Engineering, 1998, 151, 401-417.	3.4	62
43	Optimal design of periodic piezocomposites. Computer Methods in Applied Mechanics and Engineering, 1998, 159, 49-77.	3.4	100
44	<title>Topology optimization applied to the design of piezocomposite materials and piezoelectric actuators</title>. , 1998, , .		1
45	A STUDY ON THE HOMOGENIZATION METHOD FOR SOLID-FLUID MIXTURES FROM ENGINEERING VIEWPOINTS. Doboku Gakkai Ronbunshu, 1998, 1998, 85-97.	0.2	1
46	Numerical Analysis of Deep Drawing Process for Thermoplastic Composite Laminates. Journal of Engineering Materials and Technology, Transactions of the ASME, 1997, 119, 314-318.	0.8	17
47	Optimal reinforcement design of structures under the buckling load using the homogenization design method. Structural Engineering and Mechanics, 1997, 5, 565-576.	1.0	17
48	Topological design for vibrating structures. Computer Methods in Applied Mechanics and Engineering, 1995, 121, 259-280.	3.4	408
49	A NEW METHOD OF SEQUENTIAL APPROXIMATE OPTIMIZATION FOR STRUCTURAL OPTIMIZATION PROBLEMS. Engineering Optimization, 1995, 25, 231-253.	1.5	16
50	Topological Optimization Technique for Free Vibration Problems. Journal of Applied Mechanics, Transactions ASME, 1995, 62, 200-207.	1.1	75
51	Optimal Shape and Topology Design of Vibrating Structures. Solid Mechanics and Its Applications, 1995, , 189-222.	0.1	7
52	Automotive Applications of Integrated Structural Optimization. , 1995, , 223-228.		0
53	Development and Application of a Shape-Topology Optimization System Using a Homogenization Method. , 1994, , .		2
54	Structural design for obtaining desired eigenfrequencies by using the topology and shape optimization method. Computing Systems in Engineering: an International Journal, 1994, 5, 77-89.	0.5	91

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55	A parallel algorithm for topology optimization. , 1994, , .		3
56	An Optimal Design Method of Microstructure Using the Homogenization Method. , 1994, , 461-466.		0
57	Change of University and Engineering Education in the 21st Century : Case in the University of Michigan. Journal of the Society of Mechanical Engineers, 1994, 97, 1001-1005.	0.0	0
58	Topology and Generalized Layout Optimization of Elastic Structures. , 1993, , 159-205.		101
59	Layout Optimization using the Homogenization Method. , 1993, , 157-175.		5
60	Topology and Shape Optimization Methods for Structural Dynamic Problems. , 1993, , 247-261.		8
61	TOPOLOGY OPTIMIZATION OF A CAR BODY WITH MULTIPLE LOADING CONDITIONS. , 1992, , .		2
62	Shape and Topology Optimization of a Car Body with Multiple Loading Conditions. , 1992, , .		14
63	Solutions to shape and topology eigenvalue optimization problems using a homogenization method. International Journal for Numerical Methods in Engineering, 1992, 35, 1487-1502.	1.5	450
64	An arbitrary Lagrangian-Eulerian finite element method for large deformation analysis of elastic-viscoplastic solids. Computer Methods in Applied Mechanics and Engineering, 1991, 86, 127-188.	3.4	145
65	A homogenization method for shape and topology optimization. Computer Methods in Applied Mechanics and Engineering, 1991, 93, 291-318.	3.4	728
66	Structural Optimization of a Linearly Elastic Structure using the Homogenization Method. , 1991, , 183-203.		7
67	Recent Development of Finite Element Methods in the High-Speed Computing Environment. , 1991, , 20-71.		0
68	Preprocessing and postprocessing for materials based on the homogenization method with adaptive finite element methods. Computer Methods in Applied Mechanics and Engineering, 1990, 83, 143-198.	3.4	1,172
69	Experimental Finite Element Analysis of Temperature Distribution During Arc Welding. Journal of Engineering Materials and Technology, Transactions of the ASME, 1989, 111, 9-18.	0.8	14
70	Shape optimization in laminated composite plates. Computer Methods in Applied Mechanics and Engineering, 1989, 72, 29-55.	3.4	15
71	Generating optimal topologies in structural design using a homogenization method. Computer Methods in Applied Mechanics and Engineering, 1988, 71, 197-224.	3.4	5,438
72	Adaptive methods to solve free boundary problems of flow through porous media. International Journal for Numerical and Analytical Methods in Geomechanics, 1987, 11, 17-31.	1.7	19

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73	New improved hourglass control for bilinear and trilinear elements in anisotropic linear elasticity. Computer Methods in Applied Mechanics and Engineering, 1987, 65, 1-46.	3.4	78
74	Adaptive Grid Design for Finite Element Analysis In Optimization: Part 1, Review of Finite Element Error Analysis. , 1987, , 493-562.		3
75	Finite element approximations for problems in linear elasticity. , 1986, , 181-303.		1
76	A mesh re-zoning technique for finite element simulations of metal forming processes. International Journal for Numerical Methods in Engineering, 1986, 23, 219-228.	1.5	74
77	Adaptive grid-design methods for finite element analysis. Computer Methods in Applied Mechanics and Engineering, 1986, 55, 129-160.	3.4	76
78	A method of grid optimization for finite element methods. Computer Methods in Applied Mechanics and Engineering, 1983, 41, 29-45.	3.4	124
79	Penalty/finite-element approximations of a class of unilateral problems in linear elasticity. Quarterly of Applied Mathematics, 1981, 39, 1-22.	0.5	73
80	Contact problems involving forces and moments for incompressible linearly elastic materials. International Journal of Engineering Science, 1980, 18, 357-377.	2.7	22
81	A one-phase multi-dimensional Stefan problem by the method of variational inequalities. International Journal for Numerical Methods in Engineering, 1979, 14, 1197-1220.	1.5	28
82	Numerical methods for a two-phase Stefan problem by variational inequalities. International Journal for Numerical Methods in Engineering, 1979, 14, 1221-1239.	1.5	19
83	Numerical and Experimental Verification of Optimum Design Obtained from Topology Optimization. , 0, , .		3
84	Substructure Design Using a Multi-Domain Multi-Step Topology Optimization Approach. , 0, , .		7
85	Multi-Domain Multi-Step Topology Optimization for Vehicle Structure Crashworthiness Design. , 0, , .		11