

Mitsuru Kitamura

List of Publications by Year in descending order

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68
papers

1,021
citations

516710

16
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434195

31
g-index

68
all docs

68
docs citations

68
times ranked

790
citing authors

#	ARTICLE	IF	CITATIONS
1	Shape and topology optimization based on the phase field method and sensitivity analysis. Journal of Computational Physics, 2010, 229, 2697-2718.	3.8	291
2	Structural topology optimization with strength and heat conduction constraints. Computer Methods in Applied Mechanics and Engineering, 2014, 276, 341-361.	6.6	82
3	Porous composite with negative thermal expansion obtained by photopolymer additive manufacturing. APL Materials, 2015, 3, .	5.1	70
4	Topology optimization for worst load conditions based on the eigenvalue analysis of an aggregated linear system. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 2268-2281.	6.6	64
5	Topology optimization of damping material for reducing resonance response based on complex dynamic compliance. Journal of Sound and Vibration, 2016, 365, 230-243.	3.9	60
6	Porous metal produced by selective laser melting with effective isotropic thermal conductivity close to the Hashinâ€“Shtrikman bound. International Journal of Heat and Mass Transfer, 2017, 105, 564-572.	4.8	43
7	Layout optimization methodology of piezoelectric transducers in energy-recycling semi-active vibration control systems. Journal of Sound and Vibration, 2014, 333, 327-344.	3.9	36
8	Method to optimize an additively-manufactured functionally-graded lattice structure for effective liquid cooling. Additive Manufacturing, 2019, 28, 285-298.	3.0	35
9	Design methodology of piezoelectric energy-harvesting skin using topology optimization. Structural and Multidisciplinary Optimization, 2014, 49, 281-297.	3.5	33
10	Sensitivity analysis and lattice density optimization for sequential inherent strain method used in additive manufacturing process. Computer Methods in Applied Mechanics and Engineering, 2020, 370, 113231.	6.6	32
11	Optimization of an additively manufactured functionally graded lattice structure with liquid cooling considering structural performances. International Journal of Heat and Mass Transfer, 2019, 143, 118564.	4.8	29
12	Isotropic Tiâ€“6Alâ€“4V lattice via topology optimization and electron-beam melting. Additive Manufacturing, 2018, 22, 634-642.	3.0	27
13	Phase field method to optimize dielectric devices for electromagnetic wave propagation. Journal of Computational Physics, 2014, 257, 216-240.	3.8	24
14	Topology optimization for designing strain-gauge load cells. Structural and Multidisciplinary Optimization, 2010, 42, 387-402.	3.5	21
15	Structural optimization of stiffener layout for stiffened plate using hybrid GA. International Journal of Naval Architecture and Ocean Engineering, 2019, 11, 809-818.	2.3	19
16	Sensitivity analysis and optimization of vibration modes in continuum systems. Journal of Sound and Vibration, 2013, 332, 1553-1566.	3.9	17
17	Element by element a posteriori error estimation of the finite element analysis for three-dimensional elastic problems. International Journal for Numerical Methods in Engineering, 1992, 33, 1755-1769.	2.8	16
18	An objective function for the topology optimization of sound-absorbing materials. Journal of Sound and Vibration, 2019, 443, 804-819.	3.9	14

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19	Application of a genetic algorithm to the optimal structural design of a ship's engine room taking dynamic constraints into consideration. <i>Journal of Marine Science and Technology</i> , 2001, 5, 131-146.	2.9	12
20	Cross-Sectional Shape Optimization of Whispering-Gallery Ring Resonators. <i>Journal of Lightwave Technology</i> , 2012, 30, 2776-2782.	4.6	9
21	Topology optimisation of a porous unit cell in a fluid flow considering Forchheimer drag. <i>International Journal of Computational Fluid Dynamics</i> , 2020, 34, 50-60.	1.2	8
22	Cross-Sectional Optimization of Whispering-Gallery Mode Sensor With High Electric Field Intensity in the Detection Domain. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 381-390.	2.9	7
23	Two-stage layout size optimization method for prow stiffeners. <i>International Journal of Naval Architecture and Ocean Engineering</i> , 2019, 11, 44-51.	2.3	7
24	Study on optimal design of hatch cover via a three-stage optimization method involving material selection, size, and plate layout arrangement. <i>Ocean Engineering</i> , 2021, 219, 108284.	4.3	7
25	Temperature Distribution Design Based on Variable Lattice Density Optimization and Metal Additive Manufacturing. <i>Symmetry</i> , 2021, 13, 1194.	2.2	7
26	Optimization of Engine Room Structure under Static and Dynamic Constraints Using Genetic Algorithms. <i>Journal of the Society of Naval Architects of Japan</i> , 1998, 1998, 315-322.	0.2	7
27	Systematic method for positioning clamps and strongbacks based on their influence on welding displacements. <i>Ocean Engineering</i> , 2020, 202, 107084.	4.3	6
28	Method to systemically order welding sequence to efficiently mitigate welding displacement of a general ship grillage structure. <i>Ships and Offshore Structures</i> , 2020, 15, 753-768.	1.9	5
29	Design optimization of functionally graded lattice infill total hip arthroplasty stem for stress shielding reduction. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2022, 236, 515-525.	1.8	5
30	Topology Optimization for Structural Design of Transducers Using Strain Gauges. <i>Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A</i> , 2008, 74, 1459-1468.	0.2	4
31	Numerical Prediction of Welding Distortion Considering Gravity Force on General Ship Grillage Structure by Elastic Finite Element Method Using Inherent Strain. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 454.	2.6	3
32	Element-wise A Posteriori Error Estimation and Improvement of Stress Solutions for Two-dimensional Elasto-plastic Problems. <i>Journal of the Society of Naval Architects of Japan</i> , 1995, 1995, 341-348.	0.2	3
33	Structural Optimization Based on the Phase Field Method and Sensitivity Analysis. <i>Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A</i> , 2010, 76, 1-9.	0.2	2
34	Enhancement of non-resonant dielectric cloaks using anisotropic composites. <i>AIP Advances</i> , 2014, 4, 017106.	1.3	2
35	Design methodology using topology optimization for anti-vibration reinforcement of generators in a ship's engine room. <i>Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment</i> , 2016, 230, 216-226.	0.5	2
36	Lattice structure design with topology optimization and additive manufacturing. <i>Transactions of the JSME (in Japanese)</i> , 2017, 83, 16-00581-16-00581.	0.2	2

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37	Design methodology of magnetic fields and structures for magneto-mechanical resonator based on topology optimization. Optimization and Engineering, 2018, 19, 19-38.	2.4	2
38	Optimal simultaneous welding to minimise welding deformation of a general ship grillage structure. Ships and Offshore Structures, 2022, 17, 268-278.	1.9	2
39	Structural Optimization for the Design of Band-Gap Structures Using Discrete Structural Elements. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2008, 74, 780-788.	0.2	1
40	Stiffness maximization for thermal deformation under thermal conductivity constraint using topology optimization. Transactions of the JSME (in Japanese), 2015, 81, 15-00111-15-00111.	0.2	1
41	Study on damping performance for granular damper using fine particles. Transactions of the JSME (in Japanese), 2015, 81, 15-00111-15-00111.	0.2	1
42	Research on cross-sectional shape to improve mass efficiency of high-strength thin plate hollow frame bending strength. Transactions of the JSME (in Japanese), 2021, 87, 21-00096-21-00096.	0.2	1
43	Fuzzy Optimum Design of Engine Room of Ship with Dynamic Response Using Genetic Algorithms. Journal of the Society of Naval Architects of Japan, 1999, 1999, 361-368.	0.2	1
44	Multi-material topology optimization for improvement of modal damping ratio. The Proceedings of the Dynamics & Design Conference, 2016, 2016, 447.	0.0	1
45	Topology Optimization of Multi-Axis Force Transducer Structures Based on Singular Value Decomposition. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2008, 74, 2462-2470.	0.2	0
46	Structural Optimization Based on the Phase Field Method : Validation of Perimeter Constraint Effect and Extension to Compliant Mechanism Design Problem and Eigen-Frequency Maximization Problem. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2009, 75, 1784-1793.	0.2	0
47	Structural optimization of the large structure with stiffeners by hybrid genetic algorithms. Transactions of the JSME (in Japanese), 2015, 81, 15-00437-15-00437.	0.2	0
48	Piezo actuator layout optimization with SRS constraint for semi-active vibration control system. Transactions of the JSME (in Japanese), 2015, 81, 15-00191-15-00191.	0.2	0
49	Neural Network System for Structural Evaluation and Structural Optimization. The Proceedings of Design & Systems Conference, 2004, 2004.14, 231-234.	0.0	0
50	3113 Topology optimization for strain gauge type multi-axes force transducer. The Proceedings of Design & Systems Conference, 2008, 2008.18, 425-428.	0.0	0
51	3104 Topology optimization for thermo electric energy harvester. The Proceedings of Design & Systems Conference, 2010, 2010.20, _3104-1_-_3104-4_.	0.0	0
52	Robust topology optimization for the worst load case based on aggregation of linear system. , 2010, , .		0
53	3204 Research on hull structure optimization that considers modulation. The Proceedings of Design & Systems Conference, 2011, 2011.21, 546-547.	0.0	0
54	2107 A Study on the optimization of structures is performed with changed the number and the position of member subjects. The Proceedings of Design & Systems Conference, 2012, 2012.22, _2107-1_-_2107-6_.	0.0	0

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55	1118 Optimization of dielectric laser resonator using phase field method. The Proceedings of the Computational Mechanics Conference, 2012, 2012.25, 250-251.	0.0	0
56	CO-JP-1 Ground structure approach for PZT layout optimization in semi-active vibration control systems of space structures. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _CO-JP-1-1-_CO-JP-1-1.	0.0	0
57	2402 PZT layout Optimization with SRS constraint in semi-active vibration control system. The Proceedings of Design & Systems Conference, 2014, 2014.24, _2402-1_-_2402-8_.	0.0	0
58	3307 The calculation method for optimizing the number and position of stiffeners. The Proceedings of Design & Systems Conference, 2014, 2014.24, _3307-1_-_3307-6_.	0.0	0
59	Cost Minimization of Double Hull Tanker Structures Based on Plastic Design. Journal of the Society of Naval Architects of Japan, 1993, 1993, 491-499.	0.2	0
60	Application of Multiplier Method to Ship Structural Optimization in View of the Discrete Values of Standard Plate Thickness. Journal of the Society of Naval Architects of Japan, 1994, 1994, 291-299.	0.2	0
61	Adaptive Mesh Techniques Based on A Posteriori Error Estimation for Two-dimensional Elasto-plastic Finite Element Analyses. Journal of the Society of Naval Architects of Japan, 1996, 1996, 303-309.	0.2	0
62	A Posteriori Error Estimation and Adaptive Mesh Generation in Two-dimensional Elasto-plastic Finite Element Analyses for An Integrated System. Journal of the Society of Naval Architects of Japan, 1996, 1996, 463-470.	0.2	0
63	An Efficient Method by Introducing Concept of Generalized Design. Journal of the Society of Naval Architects of Japan, 1998, 1998, 533-538.	0.2	0
64	S0440104 Development of metal porous materials based on topology optimization and selective laser sintering. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _S0440104-_S0440104-.	0.0	0
65	004 Development of negative thermal expansion porous composite by topology optimization and multi-material 3D printing. The Proceedings of the Computational Mechanics Conference, 2015, 2015.28, _004-1_-_004-2_.	0.0	0
66	Topology optimization of acoustic material using self-adjoint type objective function. The Proceedings of the Dynamics & Design Conference, 2016, 2016, 445.	0.0	0
67	On failure mode of Ti-6Al-4V porous metal with effective isotropy. The Proceedings of the Materials and Mechanics Conference, 2017, 2017, OS1611.	0.0	0
68	A study on the extraction method of critical areas in the design shape of structures using sparse modeling.. Transactions of the JSME (in Japanese), 2022, 88, 21-00289-21-00289.	0.2	0