Kazuhiro Izui

List of Publications by Year in Descending Order

183 papers	2,590 citations	23 h-index	45 g-index
205 ext. papers	3,140 ext. citations	2.7 avg, IF	5.2 L-index

#	Paper	IF	Citations
183	Three-dimensional topology optimization of a fluid–structure system using body-fitted mesh adaption based on the level-set method. *Applied Mathematical Modelling*, **2022**, 101, 276-308	4.5	11
182	Weight reduction design of multi-material vehicle components using level set-based topology optimization. *Structural and Multidisciplinary Optimization*, **2022**, 65, 1	3.6	0
181	Topology optimization for the elastic field using the lattice Boltzmann method. *Computers and Mathematics With Applications*, **2022**, 110, 123-134	2.7	0
180	Full-scale 3D structural topology optimization using adaptive mesh refinement based on the level-set method. *Finite Elements in Analysis and Design*, **2021**, 194, 103561	2.2	12
179	Level set-based topology optimization for two dimensional turbulent flow using an immersed boundary method. *Journal of Computational Physics*, **2021**, 446, 110630	4.1	1
178	Unified structural optimization method using topology optimization and genetic algorithms. *Mechanical Engineering Journal*, **2021**, 8, 21-00052-21-00052	0.5	
177	Multiobjective Topology Optimization for a Multi-layered Morphing Flap Considering Multiple Flight Conditions. *Transactions of the Japan Society for Aeronautical and Space Sciences*, **2020**, 63, 90-100	0.8	5
176	Robust topology optimization of optical cloaks under uncertainties in wave number and angle of incident wave. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 3926-3954	2.4	8
175	Topology optimization for unifying deposit thickness in electroplating process. *Structural and Multidisciplinary Optimization*, **2020**, 62, 1767-1785	3.6	0
174	Level-set based topology optimization considering milling directions via fictitious physical model. *Mechanical Engineering Journal*, **2020**, 7, 20-00226-20-00226	0.5	2
173	Isogeometric topology optimization of anisotropic metamaterials for controlling high-frequency electromagnetic wave. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 1218-1247	2.4	11
172	A wavelength selective emitter design method using hyperbolic tangent level set-based shape optimization. *Optics Communications*, **2020**, 463, 125405	2	1
171	A topology optimization method in rarefied gas flow problems using the Boltzmann equation. *Journal of Computational Physics*, **2019**, 395, 60-84	4.1	4
170	Topology optimization for fluid flows using the MPS method incorporating the level set method. *Computers and Fluids*, **2019**, 188, 86-101	2.8	4
169	Topology optimization method for unsteady state incompressible viscous flow based on a level set immersed boundary method. *Transactions of the JSME (in Japanese)*, **2019**, 85, 18-00423-18-00423	0.2	
168	Robust design of radar absorbent material with broadband characteristics. *IEICE Communications Express*, **2019**, 8, 99-103	0.4	
167	Imposing geometrical constraint in topology optimization for additive manufacturing. *Transactions of the JSME (in Japanese)*, **2019**, 85, 18-00508-18-00508	0.2	

166	Proposal of Multi-layered Compliant Mechanism as Internal Mechanism of Morphing Wing. *Aerospace Technology Japan the Japan Society for Aeronautical and Space Sciences*, **2019**, 18, 151-159	0.1	1
165	Design Optimization of Radar Absorbent Material for Broadband and Continuous Oblique Incidence Characteristics. *IEICE Transactions on Communications*, **2019**, E102.B, 216-223	0.5	
164	Topology Optimization of Superconducting Electromagnets for Particle Accelerators. *IEEJ Transactions on Power and Energy*, **2019**, 139, 568-575	0.2	
163	Reliability-based topology optimization under shape uncertainty modeled in Eulerian description. *Structural and Multidisciplinary Optimization*, **2019**, 59, 75-91	3.6	4
162	Level Set-Based Topology Optimization with Manufacturing Constraint with Manufacturing Directions via Fictitious Physical Model **2019**,		1
161	Data mining based on clustering and association rule analysis for knowledge discovery in multiobjective topology optimization. *Expert Systems With Applications*, **2019**, 119, 247-261	7.8	26
160	Topology optimization for hyperbolic acoustic metamaterials using a high-frequency homogenization method. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 335, 419-471	5.7	23
159	Two-scale topology optimization for composite plates with in-plane periodicity. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 1164-1188	2.4	14
158	Optimum design of an acoustic metamaterial with negative bulk modulus in an acoustic-elastic coupled system using a level set-based topology optimization method. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 1300-1339	2.4	16
157	An Optimum Design Method for a Thermal-Fluid Device Incorporating Multiobjective Topology Optimization With an Adaptive Weighting Scheme. *Journal of Mechanical Design, Transactions of the ASME*, **2018**, 140,	3	26
156	Shape sensitivity for a two-phase heat conduction problem considering nanoscale effects. *Journal of Advanced Mechanical Design, Systems and Manufacturing*, **2018**, 12, JAMDSM0003-JAMDSM0003	0.6	0
155	Magnetising fixture design for optimal magnetisation orientation of ring-type magnet in surface-mounted permanent magnet motor. *IET Electric Power Applications*, **2018**, 12, 1344-1349	1.8	1
154	Topology optimization method for incompressible viscous flow applying an immersed boundary method. *Transactions of the JSME (in Japanese)*, **2018**, 84, 17-00551-17-00551	0.2	1
153	Topology Optimization for Unifying Deposit Thickness in Electroplating Process **2018**, 1767-1782		
152	A fundamental study on topology optimization for turbulent flows. *The Proceedings of OPTIS*, **2018**, 2018.13, 109	0	
151	Level set-based topology optimization for free surface flow using MPS method. *The Proceedings of OPTIS*, **2018**, 2018.13, 106	0	
150	Simultaneous optimization of electric current and layout of actuators for shape control. *The Proceedings of OPTIS*, **2018**, 2018.13, 307	0	
149	Multi-objective optimization for Train scheduling of lines with transmit based signaling system. *The Proceedings of OPTIS*, **2018**, 2018.13, 123	0	

148	Clustering method for pareto-optimal solution set obtained by 3D multiobjective topology optimization. *The Proceedings of OPTIS*, **2018**, 2018.13, 308	0	
147	Optimum design of a multi-functional acoustic metasurface using topology optimization based on Zwicker's loudness model. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 331, 116-137	5.7	15
146	Orthotropic material orientation optimization method in composite laminates. *Structural and Multidisciplinary Optimization*, **2018**, 57, 815-828	3.6	16
145	Thermal Performance Optimization in Electric Vehicle Power Trains by Locally Orthotropic Surface Layer Design. *Journal of Mechanical Design, Transactions of the ASME*, **2018**, 140,	3	4
144	A heuristic approach for actuator layout designs in deformable mirror devices based on current value optimization. *Structural and Multidisciplinary Optimization*, **2018**, 58, 1243-1254	3.6	5
143	Pareto frontier exploration in multiobjective topology optimization using adaptive weighting and point selection schemes. *Structural and Multidisciplinary Optimization*, **2017**, 55, 409-422	3.6	11
142	Topology optimization of hyperbolic metamaterials for an optical hyperlens. *Structural and Multidisciplinary Optimization*, **2017**, 55, 913-923	3.6	21
141	Multi-objective hybrid algorithms for layout optimization in multi-robot cellular manufacturing systems. *Knowledge-Based Systems*, **2017**, 120, 87-98	7.3	17
140	Design Optimization of a Magnetic Actuator Incorporating the Concept of the Hybrid Analysis Method. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	2
139	Optimal design of electromagnetic cloaks with multiple dielectric materials by topology optimization. *Applied Physics Letters*, **2017**, 110, 201104	3.4	19
138	Topology optimization of a no-moving-part valve incorporating Pareto frontier exploration. *Structural and Multidisciplinary Optimization*, **2017**, 56, 839-851	3.6	10
137	Multi-Objective Optimization of Magnetic Actuator Design Using Adaptive Weight Determination Scheme. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	10
136	A level set-based topology optimization method for simultaneous design of elastic structure and coupled acoustic cavity using a two-phase material model. *Journal of Sound and Vibration*, **2017**, 404, 15-30	3.9	10
135	Manufacturability evaluation for molded parts using fictitious physical models, and its application in topology optimization. *International Journal of Advanced Manufacturing Technology*, **2017**, 92, 1391-1409	3.2	20
134	Level set-based topology optimization for the design of a peltier effect thermoelectric actuator. *Structural and Multidisciplinary Optimization*, **2017**, 55, 1671-1683	3.6	5
133	A level set-based topology optimization method for optimal manifold designs with flow uniformity in plate-type microchannel reactors. *Structural and Multidisciplinary Optimization*, **2017**, 55, 1311-1327	3.6	15
132	A formulation for optimal design problem of compliant displacement magnification mechanisms based on effective energy concept. *Mechanical Engineering Letters*, **2017**, 3, 17-00453-17-00453	0.5	0
131	Topology optimization for multi-material structures based on the level set method. *Transactions of the JSME (in Japanese)*, **2017**, 83, 17-00069-17-00069	0.2	6

130	Topology optimization with geometrical constraints based on fictitious physical models (The geometrical constraint for molding and milling). *Transactions of the JSME (in Japanese)*, **2017**, 83, 17-00081-17-00081	0.2	1
129	A topology optimization method for rarefied gas flows. *Transactions of the JSME (in Japanese)*, **2017**, 83, 17-00135-17-00135	0.2	
128	Topology optimization for unification deposit thickness on electroplating process. *Transactions of the JSME (in Japanese)*, **2017**, 83, 17-00185-17-00185	0.2	1
127	Local-in-time adjoint-based topology optimization of unsteady fluid flows using the lattice Boltzmann method. *Mechanical Engineering Journal*, **2017**, 4, 17-00120-17-00120	0.5	11
126	Robust Topology Optimization for Enlarging the Bandwidth of an Electromagnetic Cloaking. *The Proceedings of Mechanical Engineering Congress Japan*, **2017**, 2017, J1210204	0	
125	Topological derivative for an acoustic-elastic coupled system based on two-phase material model. *Mechanical Engineering Letters*, **2016**, 2, 16-00246-16-00246	0.5	4
124	Optimum design of lattice structures based on continuum expression using micropolar continuum theory. *Transactions of the JSME (in Japanese)*, **2016**, 82, 16-00171-16-00171	0.2	
123	Effect of temperature on the fiber/matrix interfacial strength of carbon fiber reinforced polyamide model composites. *Mechanical Engineering Journal*, **2016**, 3, 16-00158-16-00158	0.5	7
122	Topology optimization in thermal-fluid flow using the lattice Boltzmann method. *Journal of Computational Physics*, **2016**, 307, 355-377	4.1	58
121	Gradient-based multiobjective optimization using a distance constraint technique and point replacement. *Engineering Optimization*, **2016**, 48, 1226-1250	2	9
120	A study to realize acoustic cloak using topology optimization based on level-set method.. *The Proceedings of the Dynamics & Design Conference*, **2016**, 2016, 444	0	
119	Design Study of Lightweight Automatic Transmission Parts for Vehicles Using Level Set-Based Topology Optimization **2016**,		4
118	Level set-based topology optimization targeting micropumps employing an induced-charge electro-osmosis flow. *Transactions of the JSME (in Japanese)*, **2016**, 82, 15-00406-15-00406	0.2	1
117	Simultaneous optimization of layout and task schedule for robotic cellular manufacturing systems. *Computers and Industrial Engineering*, **2016**, 102, 396-407	6.4	14
116	Shape and topology optimization based on the convected level set method. *Structural and Multidisciplinary Optimization*, **2016**, 54, 659-672	3.6	13
115	Nature inspired algorithms to optimize robot workcell layouts. *Applied Soft Computing Journal*, **2016**, 49, 570-589	7.5	19
114	Driving force profile design in comb drive electrostatic actuators using a level set-based shape optimization method. *Structural and Multidisciplinary Optimization*, **2015**, 51, 369-383	3.6	4
113	Topology optimization of free-layer damping material on a thin panel for maximizing modal loss factors expressed by only real eigenvalues. *Journal of Sound and Vibration*, **2015**, 358, 84-96	3.9	21

112	Matlab code for a level set-based topology optimization method using a reaction diffusion equation. *Structural and Multidisciplinary Optimization*, **2015**, 51, 1159-1172	3.6	75
111	A topology optimization method for a coupled thermal-fluid problem using level set boundary expressions. *International Journal of Heat and Mass Transfer*, **2015**, 81, 878-888	4.9	107
110	Multiobjective optimization using an aggregative gradient-based method. *Structural and Multidisciplinary Optimization*, **2015**, 51, 173-182	3.6	21
109	An acoustic metasurface design for wave motion conversion of longitudinal waves to transverse waves using topology optimization. *Applied Physics Letters*, **2015**, 107, 221909	3.4	41
108	J1240103 Level set based-topology optimization of heat control devices. *The Proceedings of Mechanical Engineering Congress Japan*, **2015**, 2015, _J1240103--_J1240103-	0	
107	W122002 Is multiobjective optimization needed in structural optimization problems? If so, what are the required features for multiobjective structural optimization solvers?. *The Proceedings of Mechanical Engineering Congress Japan*, **2015**, 2015, _W122002-1-_W122002-5	0	
106	Level Set-Based Topology Optimization for the Design of Light-Trapping Structures. *IEEE Transactions on Magnetics*, **2014**, 50, 729-732	2	9
105	A Multi-Level Optimization Method Using PSO for the Optimal Design of an L-Shaped Folded Monopole Antenna Array. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 206-215	4.9	17
104	Topology optimization using the lattice Boltzmann method incorporating level set boundary expressions. *Journal of Computational Physics*, **2014**, 274, 158-181	4.1	56
103	Topology optimization of acoustic metamaterials with negative mass density using a level set-based method. *Mechanical Engineering Journal*, **2014**, 1, DSM0040-DSM0040	0.5	
102	Level set-based topology optimization of steady state incompressible viscous flows under outflow rate inequality constraint. *Transactions of the JSME (in Japanese)*, **2014**, 80, DSM0213-DSM0213	0.2	1
101	A local search-based bi-objective optimization considering distance constraints. *Transactions of the JSME (in Japanese)*, **2014**, 80, DSM0389-DSM0389	0.2	
100	Topology optimization for locally resonant sonic materials. *Applied Physics Letters*, **2014**, 104, 191905	3.4	19
99	Optimal shape design of flux barriers in IPM synchronous motors using the phase field method. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2014**, 33, 998-1016	0.7	5
98	1214 Multiobjective optimization based on a local search technique considering distance constraints : adaptive adjustment of the number of points. *Proceedings of the Optimization Symposium*, **2014**, 2014.11, _1214-1_-_1214-5_		
97	Multiobjective layout optimization of robotic cellular manufacturing systems. *Computers and Industrial Engineering*, **2013**, 64, 537-544	6.4	20
96	Level Set-Based Topology Optimization for the Design of an Electromagnetic Cloak With Ferrite Material. *IEEE Transactions on Magnetics*, **2013**, 49, 2081-2084	2	16
95	Topology optimization of an acoustic metamaterial with negative bulk modulus using local resonance. *Finite Elements in Analysis and Design*, **2013**, 72, 1-12	2.2	59

94	A Topology Optimization Method for Geometrically Nonlinear Problems Incorporating Level Set Boundary Expressions and a Particle Method. *Journal of Advanced Mechanical Design, Systems and Manufacturing*, **2013**, 7, 630-643	0.6	5
93	Requisite design area on the ground plane of U-shaped folded dipole antennas. *IEICE Communications Express*, **2013**, 2, 365-371	0.4	1
92	Structural Optimization of Electrostatic Actuators Based on the Level Set Method. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2013**, 79, 3234-3247		
91	Topology Optimization for the Design of Acoustic Metamaterials Using Level Set-Based Boundary Expressions. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2013**, 79, 2138-2151		
90	A Level Set-Based Topology Optimization Using the Lattice-Boltzmann Method. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2013**, 79, 2152-2163		1
89	Space-saving and broadband design of a small vertical U-shaped folded dipole antenna for dual-band WiMAX using a PSO algorithm. *IEICE Communications Express*, **2012**, 1, 89-94	0.4	5
88	Rotor pole design of IPM motors for a sinusoidal air-gap flux density distribution. *Structural and Multidisciplinary Optimization*, **2012**, 46, 445-455	3.6	17
87	A hybrid model-classifier framework for managing prediction uncertainty in expensive optimisation problems. *International Journal of Systems Science*, **2012**, 43, 1305-1321	2.3	2
86	Level Set-Based Topology Optimization for the Design of a Ferromagnetic Waveguide. *IEEE Transactions on Magnetics*, **2012**, 48, 3072-3075	2	2
85	Identification of Material Parameters in Biot☒ Model by the Homogenization Method. *Conference Proceedings of the Society for Experimental Mechanics*, **2012**, 43-52	0.3	
84	CO-JP-7 A Layout Design Optimization Method for Multi-robot Assembly Systems. *The Proceedings of Mechanical Engineering Congress Japan*, **2012**, 2012, _CO-JP-7-1-_CO-JP-7-9	0	3
83	INVERSE DESIGN OF DIELECTRIC MATERIALS BY TOPOLOGY OPTIMIZATION. *Progress in Electromagnetics Research*, **2012**, 127, 93-120	3.8	11
82	A model-adaptive evolutionary algorithm for optimization. *Artificial Life and Robotics*, **2012**, 16, 546-550	0.6	1
81	A topology optimization method based on the level set method for the design of negative permeability dielectric metamaterials. *Computer Methods in Applied Mechanics and Engineering*, **2012**, 237-240, 192-211	5.7	69
80	Topology Optimization Method Using Level Set Boundary Expressions in Navier Stokes Flow **2012**,		1
79	Multi-Material Optimization of Magnetic Devices Using an Allen-Cahn Equation. *IEEE Transactions on Magnetics*, **2012**, 48, 3579-3582	2	8
78	Conceptual Design Method for Reducing Brake Squeal in Disk Brake Systems Considering Unpredictable Usage Factors. *Journal of Mechanical Design, Transactions of the ASME*, **2012**, 134,	3	1
77	Cutting Path Design to Minimize Workpiece Displacement at Cutting Point: Milling of Thin-Walled Parts. *International Journal of Automation Technology*, **2012**, 6, 638-647	0.8	7

#	Reference		
76	A Conceptual Design Method of Disc Brake Systems for Reducing Brake Squeal Considering Pressure Distribution Variations. *Journal of the Japan Society for Precision Engineering*, **2011**, 77, 525-532	0.1	
75	A Topology Optimization Method Based on the Multiple Phase Projection Method (A New Formulation of the Projection Function for Reducing the Number of Design Variables). *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2011**, 77, 836-846		
74	Topology Optimization Based on the Level Set Method Using Mathematical Programming. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2011**, 77, 4001-4014		2
73	A Level Set-Based Topology Optimization Method Using the Augmented Lagrangian Method. *Journal of Environment and Engineering*, **2011**, 6, 387-399		
72	A Structural Optimization Method Incorporating Level Set Boundary Expressions Based on the Concept of the Phase Field Method. *Journal of Environment and Engineering*, **2011**, 6, 567-578		4
71	. *IEEE Transactions on Magnetics*, **2011**, 47, 3024-3027	2	41
70	Topology optimization using a reaction–diffusion equation. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 2407-2420	5.7	64
69	A generalized macroscopic model for sound-absorbing poroelastic media using the homogenization method. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 251-264	5.7	17
68	Design of Compliant Thermal Actuators Using Structural Optimization Based on the Level Set Method. *Journal of Computing and Information Science in Engineering*, **2011**, 11,	2.4	10
67	A Level Set-Based Topology Optimization Method for Maximizing Thermal Diffusivity in Problems Including Design-Dependent Effects. *Journal of Mechanical Design, Transactions of the ASME*, **2011**, 133,	3	71
66	Level set-based topology optimisation of a compliant mechanism design using mathematical programming. *Mechanical Sciences*, **2011**, 2, 91-98	1.3	11
65	A Classifier-Assisted Framework for Expensive Optimization Problems: A Knowledge-Mining Approach. *Lecture Notes in Computer Science*, **2011**, 161-175	0.9	1
64	Dimensionality-reduction frameworks for computationally expensive problems **2010**,		4
63	Multiobjective optimisation method for life-cycle design of mechanical products. *International Journal of Sustainable Engineering*, **2010**, 3, 81-94	3.1	3
62	Switchgear component commonality design based on trade-off analysis among inventory level, delivery lead-time and product performance. *International Journal of Production Research*, **2010**, 48, 2821-2840	7.8	6
61	Reliability-Based Topology Optimization of Frame Structures for Multiple Criteria Using SLSV Method. *Journal of Computational Science and Technology*, **2010**, 4, 172-184		2
60	Structural Optimization of Mechanical Structures Targeting Vibration Characteristics Based on the Level Set Method. *Journal of Environment and Engineering*, **2010**, 5, 60-71		1
59	A Conceptual Design Method of Disc Brake Systems for Reducing Brake Squeal. *Journal of the Japan Society for Precision Engineering*, **2010**, 76, 973-980	0.1	1

58	A level set based topology optimization method using the discretized signed distance function as the design variables. *Structural and Multidisciplinary Optimization*, **2010**, 41, 685-698	3.6	21
57	Optimization of Magnetization Directions in a 3-D Magnetic Structure. *IEEE Transactions on Magnetics*, **2010**, 46, 1603-1606	2	7
56	A structural optimization method based on the level set method using a new geometry-based re-initialization scheme. *International Journal for Numerical Methods in Engineering*, **2010**, 83, 1580-1624	2.4	69
55	A topology optimization method based on the level set method incorporating a fictitious interface energy. *Computer Methods in Applied Mechanics and Engineering*, **2010**, 199, 2876-2891	5.7	369
54	Level set-based structural topology optimization of thermal deformation control structures using thermoelectric devicesThermoelectric Devices **2010**,		1
53	Handling Undefined Vectors in Expensive Optimization Problems. *Lecture Notes in Computer Science*, **2010**, 582-591	0.9	6
52	Cutting Process Design for Minimizing Workpiece Displacement at Cutting Point. *Journal of the Japan Society for Precision Engineering*, **2010**, 76, 1406-1410	0.1	2
51	Construction of an optimum system design method considering product lifecycle. *International Journal of Sustainable Engineering*, **2009**, 2, 171-183	3.1	2
50	An innovative design method for compliant mechanisms combining structural optimisations and designer creativity. *Journal of Engineering Design*, **2009**, 20, 125-154	1.8	7
49	Product Optimization Incorporating Discrete Design Variables Based on Decomposition of Performance Characteristics. *Journal of Mechanical Design, Transactions of the ASME*, **2009**, 131,	3	4
48	Topology optimization for cross-section designs of electromagnetic waveguides targeting guiding characteristics. *Finite Elements in Analysis and Design*, **2009**, 45, 944-957	2.2	9
47	Topology optimization for thermal conductors considering design-dependent effects, including heat conduction and convection. *International Journal of Heat and Mass Transfer*, **2009**, 52, 2721-2732	4.9	122
46	Multi-objective hierarchical genetic algorithms for multilevel redundancy allocation optimization. *Reliability Engineering and System Safety*, **2009**, 94, 891-904	6.3	29
45	Optimal multilevel redundancy allocation in series and series-parallel systems. *Computers and Industrial Engineering*, **2009**, 57, 169-180	6.4	20
44	A Structural Optimization Method Incorporating Level Set Boundary Expressions Based on the Concept of the Phase Field Method. *Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A*, **2009**, 75, 550-558		14
43	Level Set-Based Topology Optimization Method for Thermal Problems(Mechanical Systems). *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2009**, 75, 2868-2876		2
42	Reliability-Based Topology Optimization for Frame Structures Considering Multiple Performance Criteria Using SLSV Method with Improvement of Convergence Property(Mechanical Systems). *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2009**, 75, 719-726		
41	Multilevel Redundancy Allocation Optimization Using Hierarchical Genetic Algorithm. *IEEE Transactions on Reliability*, **2008**, 57, 650-661	4.6	33

40	Comparative Study of Topology Optimization Techniques. *AIAA Journal*, **2008**, 46, 1963-1975	2.1	21
39	Structural Optimization of Compliant Thermal Micro-Actuators Based on the Level Set Method **2008**,		3
38	Enhanced multiobjective particle swarm optimization in combination with adaptive weighted gradient-based searching. *Engineering Optimization*, **2008**, 40, 789-804	2	19
37	Robust Topology Optimization for Compliant Mechanisms Considering Uncertainty of Applied Loads. *Journal of Advanced Mechanical Design, Systems and Manufacturing*, **2008**, 2, 96-107	0.6	69
36	Design of Compliant Thermal Actuators Using Structural Optimization Based on the Level Set Method **2008**,		2
35	Optimal Modular Redundancy Using Hierarchical Genetic Algorithms **2007**,		1
34	Structural optimization based on topology optimization techniques using frame elements considering cross-sectional properties. *Structural and Multidisciplinary Optimization*, **2007**, 34, 41-60	3.6	21
33	Swarm algorithms for single- and multi-objective optimization problems incorporating sensitivity analysis. *Engineering Optimization*, **2007**, 39, 981-998	2	12
32	An Optimal Design Method for Reducing Brake Squeal in Disc Brake Systems **2007**, 895		2
31	Topology Optimization of Mechanical Structures Targeting Vibration Characteristics. *Journal of Environment and Engineering*, **2007**, 2, 480-492		4
30	Topology Optimization for Thermal Problems Based on Assumed Continuous Approximation of Material Distributions. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2007**, 73, 2426-2433		2
29	Structural topology optimization of vibrating structures with specified eigenfrequencies and eigenmode shapes. *International Journal for Numerical Methods in Engineering*, **2006**, 67, 597-628	2.4	73
28	Hierarchical Arrangement of Characteristics in Product Design Optimization. *Journal of Mechanical Design, Transactions of the ASME*, **2006**, 128, 701-709	3	12
27	Decision-making support system for human resource allocation in product development projects. *International Journal of Production Research*, **2006**, 44, 831-848	7.8	38
26	A rapid analysis method for production line design. *International Journal of Production Research*, **2006**, 44, 1171-1192	7.8	13
25	Structural Optimization Using Function-Oriented Elements to Support Conceptual Designs. *Journal of Mechanical Design, Transactions of the ASME*, **2006**, 128, 689-700	3	8
24	Reliability-based structural optimization of frame structures for multiple failure criteria using topology optimization techniques. *Structural and Multidisciplinary Optimization*, **2006**, 32, 299-311	3.6	51
23	A Multiple Cross-Sectional Shape Optimization Method for Automotive Body Frames. *Journal of Mechanical Design, Transactions of the ASME*, **2005**, 127, 49-57	3	36

22	Concurrent Design and Evaluation Based on Structural Optimization using Structural and Function-oriented Elements at the Conceptual Design Phase. *Concurrent Engineering Research and Applications*, **2005**, 13, 29-42	1.7	10
21	A Survey of Structural Optimization in Mechanical Product Development. *Journal of Computing and Information Science in Engineering*, **2005**, 5, 214-226	2.4	71
20	Topology Optimization Using Structural Discrete Elements(In Cases where the Principal Direction of Moment of Inertia in Frame Element Cross-Section is Included as a Design Variable). *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2005**, 71, 1962-1969		
19	Topology Optimization Using Frame Elements (For Cases Where Eigen-frequencies are to be Maximized). *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2005**, 71, 3018-3025		1
18	Human Resource Allocation Optimization for Multiple Development Projects. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2005**, 71, 677-684		1
17	Collaboration Support System Based on Visualization of Communication Processes. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2005**, 71, 2370-2377		1
16	Topology Optimization of Mechanical Structures Targeting Vibration Characteristics. *Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C*, **2005**, 71, 813-820		
15	Decision Support System for Selecting Collaborative Product Development Partners. *Concurrent Engineering Research and Applications*, **2005**, 13, 5-11	1.7	7
14	A Method for Determining the Optimal Direction of the Principal Moment of Inertia in Frame Element Cross-Sections **2004**, 657		1
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