Yoshihiro Kanno

List of Publications by Year
in descending order

99 papers	1,553 citations	279798 23 h-index	377865 34 g-index
101 all docs	101 docs citations	101 times ranked	809 citing authors

#	Article	IF	Citations
1	Resonant behaviour of base-isolated high-rise buildings under long-period ground motions. Structural Design of Tall and Special Buildings, 2006, 15, 325-338.	1.9	107
2	Sequential Semidefinite Program for Maximum Robustness Design of Structures under Load Uncertainty. Journal of Optimization Theory and Applications, 2006, 130, 265-287.	1.5	69
3	Semi-definite programming for topology optimization of trusses under multiple eigenvalue constraints. Computer Methods in Applied Mechanics and Engineering, 1999, 180, 203-217.	6.6	68
4	A numerical algorithm for block-diagonal decomposition of matrix $${*}$$ -algebras with application to semidefinite programming. Japan Journal of Industrial and Applied Mathematics, 2010, 27, 125-160.	0.9	56
5	Topology design of tensegrity structures via mixed integer programming. International Journal of Solids and Structures, 2010, 47, 571-579.	2.7	56
6	Three-dimensional quasi-static frictional contact by using second-order cone linear complementarity problem. International Journal for Numerical Methods in Engineering, 2006, 65, 62-83.	2.8	53
7	A direct approach to design of geometry and forces of tensegrity systems. International Journal of Solids and Structures, 2006, 43, 2260-2278.	2.7	51
8	Topology optimization of tensegrity structures under compliance constraint: a mixed integer linear programming approach. Optimization and Engineering, 2013, 14, 61-96.	2.4	44
9	Redundancy and Robustness, or When Is Redundancy Redundant?. Journal of Structural Engineering, 2011, 137, 935-945.	3.4	42
10	Group Symmetry in Interior-Point Methods for Semidefinite Program. Optimization and Engineering, 2001, 2, 293-320.	2.4	40
11	Robustness analysis of trusses with separable load and structural uncertainties. International Journal of Solids and Structures, 2006, 43, 2646-2669.	2.7	40
12	A mixed integer programming for robust truss topology optimization with stress constraints. International Journal for Numerical Methods in Engineering, 2010, 83, 1675-1699.	2.8	39
13	Large-deformation and friction analysis of non-linear elastic cable networks by second-order cone programming. International Journal for Numerical Methods in Engineering, 2002, 55, 1079-1114.	2.8	35
14	Global optimization of robust truss topology via mixed integer semidefinite programming. Optimization and Engineering, 2010, 11, 355-379.	2.4	34
15	Exploring new tensegrity structures via mixed integer programming. Structural and Multidisciplinary Optimization, 2013, 48, 95-114.	3.5	33
16	Second-order cone programming with warm start for elastoplastic analysis with von Mises yield criterion. Optimization and Engineering, 2012, 13, 181-218.	2.4	32
17	Damper placement optimization in a shear building model with discrete design variables: a mixedâ€integer secondâ€order cone programming approach. Earthquake Engineering and Structural Dynamics, 2013, 42, 1657-1676.	4.4	29
18	Mixed-integer programming formulation of a data-driven solver in computational elasticity. Optimization Letters, 2019, 13, 1505-1514.	1.6	28

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19	Confidence ellipsoids for static response of trusses with load and structural uncertainties. Computer Methods in Applied Mechanics and Engineering, 2006, 196, 393-403.	6.6	26
20	A mixed integer programming approach to designing periodic frame structures with negative Poissonâ€™s ratio. Optimization and Engineering, 2014, 15, 773-800.	2.4	26
21	Optimal design of periodic frame structures with negative thermal expansion via mixed integer programming. Optimization and Engineering, 2015, 16, 767-809.	2.4	25
22	Worst case plastic limit analysis of trusses under uncertain loads via mixed 0-1 programming. Journal of Mechanics of Materials and Structures, 2007, 2, 245-273.	0.6	24
23	TOPOLOGY OPTIMIZATION OF TENSEGRITY STRUCTURES UNDER SELF-WEIGHT LOADS. Journal of the Operations Research Society of Japan, 2012, 55, 125-145.	0.2	23
24	Minimum principle of complementary energy of cable networks by using second-order cone programming. International Journal of Solids and Structures, 2003, 40, 4437-4460.	2.7	22
25	On three concepts in robust design optimization: absolute robustness, relative robustness, and less variance. Structural and Multidisciplinary Optimization, 2020, 62, 979-1000.	3.5	22
26	Simple heuristic for data-driven computational elasticity with material data involving noise and outliers: a local robust regression approach. Japan Journal of Industrial and Applied Mathematics, 2018, 35, 1085-1101.	0.9	21
27	A semidefinite programming approach to robust truss topology optimization under uncertainty in locations of nodes. Structural and Multidisciplinary Optimization, 2015, 51, 439-461.	3.5	20
28	Mixed-integer second-order cone programming for global optimization of compliance of frame structure with discrete design variables. Structural and Multidisciplinary Optimization, 2016, 54, 301-316.	3.5	19
29	A flow topology optimization method for steady state flow using transient information of flow field solved by lattice Boltzmann method. Structural and Multidisciplinary Optimization, 2015, 51, 159-172.	3.5	17
30	Global optimization of trusses with constraints on number of different cross-sections: a mixed-integer second-order cone programming approach. Computational Optimization and Applications, 2016, 63, 203-236.	1.6	17
31	A kernel method for learning constitutive relation in data-driven computational elasticity. Japan Journal of Industrial and Applied Mathematics, 2021, 38, 39-77.	0.9	16
32	Data-driven computing in elasticity via kernel regression. Theoretical and Applied Mechanics Letters, 2018, 8, 361-365.	2.8	15
33	Robust truss topology optimization via semidefinite programming with complementarity constraints: a difference-of-convex programming approach. Computational Optimization and Applications, 2018, 71, 403-433.	1.6	14
34	A data-driven approach to non-parametric reliability-based design optimization of structures with uncertain load. Structural and Multidisciplinary Optimization, 2019, 60, 83-97.	3.5	14
35	Necessary and sufficient conditions for global optimality of eigenvalue optimization problems. Structural and Multidisciplinary Optimization, 2001, 22, 248-252.	3.5	13
36	Semidefinite programming for uncertain linear equations in static analysis of structures. Computer Methods in Applied Mechanics and Engineering, 2008, 198, 102-115.	6.6	13

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37	Relaxation approach to topology optimization of frame structure under frequency constraint. Structural and Multidisciplinary Optimization, 2016, 53, 731-744.	3.5	13
38	A fast first-order optimization approach to elastoplastic analysis of skeletal structures. Optimization and Engineering, 2016, 17, 861-896.	2.4	13
39	Robustness Evaluation of Elastoplastic Base-Isolated High-Rise Buildings Subjected to Critical Double Impulse. Frontiers in Built Environment, 2017, 3, .	2.3	13
40	A non-interior implicit smoothing approach to complementarity problems for frictionless contacts. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1176-1185.	6.6	12
41	Linear programming approach to design of spatial link mechanism with partially rigid joints. Structural and Multidisciplinary Optimization, 2014, 50, 945-956.	3.5	12
42	A note on truss topology optimization under self-weight load: mixed-integer second-order cone programming approach. Structural and Multidisciplinary Optimization, 2017, 56, 221-226.	3.5	12
43	Redundancy Optimization of Finite-Dimensional Structures: Concept and Derivative-Free Algorithm. Journal of Structural Engineering, 2017, 143, .	3.4	12
44	Contact Analysis of Cable Networks by Using Second-Order Cone Programming. SIAM Journal of Scientific Computing, 2006, 27, 2032-2052.	2.8	11
45	Accelerated proximal gradient method for elastoplastic analysis with von Mises yield criterion. Japan Journal of Industrial and Applied Mathematics, 2018, 35, 1-32.	0.9	11
46	Imperfection sensitivity of hilltop branching points of systems with dihedral group symmetry. International Journal of Non-Linear Mechanics, 2005, 40, 755-774.	2.6	10
47	Worst scenario detection in limit analysis of trusses against deficiency of structural components. Engineering Structures, 2012, 42, 33-42.	5.3	10
48	Alternating direction method of multipliers as a simple effective heuristic for mixed-integer nonlinear optimization. Structural and Multidisciplinary Optimization, 2018, 58, 1291-1295.	3.5	10
49	Robustness analysis of structures based on plastic limit analysis with uncertain loads. Journal of Mechanics of Materials and Structures, 2008, 3, 213-241.	0.6	10
50	Non-uniqueness and symmetry of optimal topology of a shell for minimum compliance. Structural and Multidisciplinary Optimization, 2011, 43, 459-471.	3.5	9
51	Minimum Principle of Complementary Energy for Nonlinear Elastic Cable Networks with Geometrical Nonlinearities. Journal of Optimization Theory and Applications, 2005, 126, 617-641.	1.5	8
52	Topology optimization method for interior flow based on transient information of the lattice Boltzmann method with a level-set function. Japan Journal of Industrial and Applied Mathematics, 2017, 34, 611-632.	0.9	8
53	Alternating direction method of multipliers for truss topology optimization with limited number of nodes: a cardinality-constrained second-order cone programming approach. Optimization and Engineering, 2018, 19, 327-358.	2.4	8
54	Semidefinite programming for dynamic steady-state analysis of structures under uncertain harmonic loads. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3239-3261.	6.6	7

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55	ANALYSIS OF STABILITY AND MECHANISM OF FRAMES WITH PARTIALLY RIGID CONNECTIONS. Journal of Structural and Construction Engineering, 2013, 78, 791-798.	0.5	7
56	Structural design for earthquake resilience: Info-gap management of uncertainty. Structural Safety, 2017, 69, 23-33.	5.3	7
57	Accelerated proximal gradient method for bi-modulus static elasticity. Optimization and Engineering, 2022, 23, 453-477.	2.4	7
58	Symmetricity of the solution of semidefinite programming. Structural and Multidisciplinary Optimization, 2002, 24, 225-232.	3.5	6
59	Optimizationâ€based stability analysis of structures under unilateral constraints. International Journal for Numerical Methods in Engineering, 2009, 77, 90-125.	2.8	6
60	Combined interiorâ€point method and semismooth Newton method for frictionless contact problems. International Journal for Numerical Methods in Engineering, 2010, 81, 701-727.	2.8	6
61	Ellipsoidal load-domain shakedown analysis with von Mises yield criterion: A robust optimization approach. International Journal for Numerical Methods in Engineering, 2016, 107, 1136-1144.	2.8	6
62	A note on formulations of static shakedown analysis with bounded kinematic hardening. Mechanics Research Communications, 2016, 74, 57-59.	1.8	5
63	Robustness analysis of elastoplastic structure subjected to double impulse. Journal of Sound and Vibration, 2016, 383, 309-323.	3.9	5
64	Accelerated projected gradient method with adaptive step size for compliance minimization problem. JSIAM Letters, 2021, 13, 33-36.	0.5	5
65	A NOTE ON ACCELERATED PROXIMAL GRADIENT METHOD FOR ELASTOPLASTIC ANALYSIS WITH TRESCA YIELD CRITERION. Journal of the Operations Research Society of Japan, 2020, 63, 78-92.	0.2	5
66	APPROXIMATION ALGORITHM FOR ROBUSTNESS FUNCTIONS OF TRUSSES WITH UNCERTAIN STIFFNESS UNDER UNCERTAIN FORCES. Journal of Structural and Construction Engineering, 2005, 70, 53-60.	0.5	4
67	Arc-Length Method for Frictional Contact Problems Using Mathematical Programming with Complementarity Constraints. Journal of Optimization Theory and Applications, 2006, 131, 89-113.	1.5	4
68	Enumeration of all wedged equilibrium configurations in contact problem with Coulomb friction. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1202-1215.	6.6	4
69	Robustness of SDOF elastoplastic structure subjected to double-impulse input under simultaneous uncertainties of yield deformation and stiffness. International Journal of Non-Linear Mechanics, 2017, 91, 151-162.	2.6	4
70	A Heuristic Method Using Hessian Matrix for Fast Flow Topology Optimization. Journal of Optimization Theory and Applications, 2019, 180, 671-681.	1.5	4
71	An accelerated Uzawa method for application to frictionless contact problem. Optimization Letters, 2020, 14, 1845-1854.	1.6	4
72	A note on a family of proximal gradient methods for quasi-static incremental problems in elastoplastic analysis. Theoretical and Applied Mechanics Letters, 2020, 10, 315-320.	2.8	4

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73	Stability analysis of cableâ€“bar structures by inverse-power method for eigenvalue analysis with penalization. International Journal of Solids and Structures, 2008, 45, 4264-4273.	2.7	3
74	AN IMPLICIT FORMULATION OF MATHEMATICAL PROGRAM WITH COMPLEMENTARITY CONSTRAINTS FOR APPLICATION TO ROBUST STRUCTURAL OPTIMIZATION. Journal of the Operations Research Society of Japan, 2011, 54, 65-85.	0.2	3
75	APPLICATION OF ACCELERATED GRADIENT METHOD TO EQUILIBRIUM ANALYSIS OF TRUSSES WITH NONLINEAR ELASTIC MATERIALS. Journal of Structural and Construction Engineering, 2019, 84, 1223-1230.	0.5	3
76	A NOTE ON FORMULATIONS OF ROBUST COMPLIANCE OPTIMIZATION UNDER UNCERTAIN LOADS. Journal of Structural and Construction Engineering, 2015, 80, 601-607.	0.5	2
77	Second-Order Cone Programming Approach to Design of Linkage Mechanisms With Arbitrarily Inclined Hinges. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	2
78	Alternating Direction Method of Multipliers as Simple Heuristic for Topology Optimization of a Truss With Uniformed Member Cross Sections. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	2.9	2
79	Group theoretic approach to large-deformation property of three-dimensional bar-hinge mechanism. Japan Journal of Industrial and Applied Mathematics, 2019, 36, 177-208.	0.9	2
80	Numerical simulation of base-isolated buildings in collisions with surrounding moat walls during earthquakes: a nonsmooth mechanics approach. Optimization and Engineering, 2020, 21, 1423-1457.	2.4	2
81	Ellipsoidal bounds for static response of framed structures against interactive uncertainties. Interaction and Multiscale Mechanics, 2008, 1, 103-121.	0.4	2
82	Dimensionality reduction enhances data-driven reliability-based design optimize. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2020, 14, JAMDSM0008-JAMDSM0008.	0.7	2
83	Mixed-integer second-order cone programming for truss topology optimization with self-weight load and limitation on number of nodes. , 2017, , .		1
84	Exploiting Lagrange duality for topology optimizationwith frictionless unilateral contact. Japan Journal of Industrial and Applied Mathematics, 2020, 37, 25-48.	0.9	1
85	Alternating minimization for data-driven computational elasticity from experimental data: kernel method for learning constitutive manifold. Theoretical and Applied Mechanics Letters, 2021, 11, 100289.	2.8	1
86	Nonlinear prediction using radial basis function network incorporating coordinate transformation. Mechanical Engineering Letters, 2019, 5, 18-00517-18-00517.	0.6	1
87	PRIMAL-DUAL ALGORITHM FOR QUASI-STATIC CONTACT PROBLEM WITH COULOMB'S FRICTION. Journal of the Operations Research Society of Japan, 2022, 65, 1-22.	0.2	1
88	A Practical Variant of the Semismooth Newton Method for Frictionless Contact Problems. Journal of Computational Science and Technology, 2009, 3, 54-65.	0.4	0
89	ROBUSTNESS ANALYSIS OF STRUCTURES UNDER COMPLIANCE CONSTRAINT. Journal of Structural and Construction Engineering, 2012, 77, 27-33.	0.5	0
90	Worst-case load in plastic limit analysis of frame structures. Journal of Mechanics of Materials and Structures, 2013, 8, 415-439.	0.6	0

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91	Fast local convergence for flow topology optimization using the lattice Boltzmann method with a modified Newton method. Transactions of the JSME (in Japanese), 2016, 82, 15-00337-15-00337.	0.2	0
92	GLOBAL TOPOLOGY OPTIMIZATION OF STRUCTURAL FRAMES WITH UPPER BOUNDS FOR MEMBER LENGTHS AND NUMBER OF JOINTS. Journal of Structural and Construction Engineering, 2018, 83, 451-458.	0.5	0
93	Intrinsic Formulation and Lagrange Duality for Elastic Cable Networks with Geometrical Nonlinearity. Journal of Elasticity, 2019, 134, 193-217.	1.9	0
94	Structural reliability under uncertainty in moments: distributionally-robust reliability-based design optimization. Japan Journal of Industrial and Applied Mathematics, 0, , 1.	0.9	0
95	SEMIDEFINITE PROGRAMMING FOR STRUCTURAL OPTIMIZATION. , 2007, , 541-567.		0
96	Dynamic Steady-State Analysis of Structures under Uncertain Harmonic Loads via Semidefinite Program. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 99-112.	0.2	0
97	Worst-Scenario of Deficiency of Structural Elements in Plastic Limit Analysis. , 2012, , .		0
98	3507 Avoiding gray-scale problems and improving convergence properties by using Newton method in flow topology optimization. The Proceedings of Design & Systems Conference, 2015, 2015.25, _3507-1_-_3507-8_.	0.0	0
99	Robust optimization of structures subjected to frictionless unilateral contact with uncertain initial gaps. Mechanical Engineering Letters, 2020, 6, 20-00224-20-00224.	0.6	0