Albert A Groenwold

List of Publications by Year
in descending order

56 papers	1,077 citations	516710 16 h-index	414414 32 g-index
56 all docs	56 docs citations	56 times ranked	651 citing authors

#	Article	IF	Citations
1	A Study of Global Optimization Using Particle Swarms. Journal of Global Optimization, 2005, 31, 93-108.	1.8	321
2	Optimization with non-homogeneous failure criteria like Tsaiâ€“Wu for composite laminates. Structural and Multidisciplinary Optimization, 2006, 32, 183-190.	3.5	77
3	Comparison of linear and classical velocity update rules in particle swarm optimization: notes on diversity. International Journal for Numerical Methods in Engineering, 2007, 70, 962-984.	2.8	54
4	On the equivalence of optimality criterion and sequential approximate optimization methods in the classical topology layout problem. International Journal for Numerical Methods in Engineering, 2008, 73, 297-316.	2.8	44
5	An efficient 4â€node 24 D.O.F. thick shell finite element with 5â€point quadrature. Engineering Computations, 1995, 12, 723-747.	1.4	42
6	Comparison of linear and classical velocity update rules in particle swarm optimization: notes on scale and frame invariance. International Journal for Numerical Methods in Engineering, 2007, 70, 985-1008.	2.8	42
7	A simple heuristic for gray-scale suppression in optimality criterion-based topology optimization. Structural and Multidisciplinary Optimization, 2009, 39, 217-225.	3.5	35
8	Incomplete series expansion for function approximation. Structural and Multidisciplinary Optimization, 2007, 34, 21-40.	3.5	34
9	First-order sequential convex programming using approximate diagonal QP subproblems. Structural and Multidisciplinary Optimization, 2012, 45, 479-488.	3.5	29
10	Approximated approximations for SAO. Structural and Multidisciplinary Optimization, 2010, 41, 39-56.	3.5	24
11	Two hybrid stress membrane finite element families with drilling rotations. International Journal for Numerical Methods in Engineering, 2002, 53, 583-601.	2.8	23
12	Global Optimization using Dynamic Search Trajectories. Journal of Global Optimization, 2002, 24, 51-60.	1.8	21
13	A quadratically convergent unstructured remeshing strategy for shape optimization. International Journal for Numerical Methods in Engineering, 2006, 65, 1-17.	2.8	20
14	Sequential approximate optimization using dual subproblems based on incomplete series expansions. Structural and Multidisciplinary Optimization, 2008, 36, 547-570.	3.5	20
15	Planar four node piezoelectric elements with drilling degrees of freedom. International Journal for Numerical Methods in Engineering, 2006, 65, 1802-1830.	2.8	17
16	Globally Convergent Optimization Algorithm Using Conservative Convex Separable Diagonal Quadratic Approximations. AIAA Journal, 2009, 47, 2649-2657.	2.6	17
17	A quadratic approximation for structural topology optimization. International Journal for Numerical Methods in Engineering, 2010, 82, 505-524.	2.8	17
18	Observations in the statistical analysis of NBG-18 nuclear graphite strength tests. Journal of Nuclear Materials, 2012, 420, 110-115.	2.7	17

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19	The application of gradient-only optimization methods for problems discretized using non-constant methods. Structural and Multidisciplinary Optimization, 2010, 40, 433-451.	3.5	14
20	On the conditional acceptance of iterates in SAO algorithms based on convex separable approximations. Structural and Multidisciplinary Optimization, 2010, 42, 165-178.	3.5	14
21	Failure prediction of full-size reactor components from tensile specimen data on NBG-18 nuclear graphite. Nuclear Engineering and Design, 2015, 284, 1-9.	1.7	14
22	Effects of finite element formulation on optimal plate and shell structural topologies. Finite Elements in Analysis and Design, 2009, 45, 817-825.	3.2	13
23	A numerical stress based approach for predicting failure in NBG-18 nuclear graphite components with verification problems. Journal of Nuclear Materials, 2013, 436, 175-184.	2.7	13
24	Accurate solution of traction free boundaries using hybrid stress membrane elements with drilling degrees of freedom. Computers and Structures, 2004, 82, 2071-2081.	4.4	12
25	A numerical study of the effect of penalty parameters for membrane elements with independent rotation fields and penalized equilibrium. Finite Elements in Analysis and Design, 2006, 42, 757-765.	3.2	12
26	Positive definite separable quadratic programs for non-convex problems. Structural and Multidisciplinary Optimization, 2012, 46, 795-802.	3.5	12
27	On rotationally invariant continuous-parameter genetic algorithms. Advances in Engineering Software, 2014, 78, 52-59.	3.8	10
28	On reduced integration and locking of flat shell finite elements with drilling rotations. Communications in Numerical Methods in Engineering, 2002, 19, 85-97.	1.3	9
29	A 24 d.o.f. fourâ€node flat shell finite element for general unsymmetric orthotropic layered composites. Engineering Computations, 1998, 15, 518-543.	1.4	8
30	An augmented Lagrangian approach to non-convex SAO using diagonal quadratic approximations. Structural and Multidisciplinary Optimization, 2009, 38, 415-421.	3.5	7
31	Axisymmetric solid-of-revolution finite elements with rotational degrees of freedom. Finite Elements in Analysis and Design, 2009, 45, 121-131.	3.2	7
32	Optimization of cylindrical composite flywheel rotors for energy storage. Structural and Multidisciplinary Optimization, 2013, 47, 135-147.	3.5	7
33	Local stressâ€constrained and slopeâ€constrained SAND topology optimisation. International Journal for Numerical Methods in Engineering, 2017, 110, 420-439.	2.8	7
34	Reduced modified quadratures for quadratic membrane finite elements. International Journal for Numerical Methods in Engineering, 2004, 61, 837-855.	2.8	6
35	Computationally Efficient Analysis and Optimization of Stiffened Thin-Walled Panels in Shear. Journal of Aircraft, 2005, 42, 743-747.	2.4	6
36	Lower and upper bound estimation of isotropic and orthotropic fracture mechanics problems using elements with rotational degrees of freedom. Communications in Numerical Methods in Engineering, 2006, 24, 335-353.	1.3	6

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37	Nonâ€convex dual forms based on exponential intervening variables, with application to weight minimization. International Journal for Numerical Methods in Engineering, 2009, 80, 1544-1572.	2.8	6
38	Gradient-only approaches to avoid spurious local minima in unconstrained optimization. Optimization and Engineering, 2013, 14, 275-304.	2.4	6
39	Relaxed error control in shape optimization that utilizes remeshing. International Journal for Numerical Methods in Engineering, 2013, 94, 273-289.	2.8	5
40	Optimisation of the link volume for weakest link failure prediction in NBG-18 nuclear graphite. Nuclear Engineering and Design, 2014, 274, 10-19.	1.7	5
41	On concave constraint functions and duality in predominantly black-and-white topology optimization. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 2224-2234.	6.6	4
42	A globally convergent sequential convex programming using an enhanced two-point diagonal quadratic approximation for structural optimization. Structural and Multidisciplinary Optimization, 2014, 50, 739-753.	3.5	4
43	On sequential approximate simultaneous analysis and design in classical topology optimization. International Journal for Numerical Methods in Engineering, 2017, 110, 227-247.	2.8	3
44	Effects of planar element formulation and numerical integration order on checkerboard material layouts. Structural and Multidisciplinary Optimization, 2009, 39, 487-501.	3.5	2
45	On the linearization of separable quadratic constraints in dual sequential convex programs. Computers and Structures, 2012, 102-103, 42-48.	4.4	2
46	On design-set restriction in SAND topology optimization. Structural and Multidisciplinary Optimization, 2018, 57, 1579-1592.	3.5	2
47	On the rotational variance of the differential evolution algorithm. Advances in Engineering Software, 2019, 136, 102691.	3.8	2
48	A New 24 D.O.F. Assumed Stress Finite Element for Orthotropic Shells. , 2001, , 647-654.		1
49	Ultrasonic motor resonator design using shape and topology optimization. , 2004, , .		1
50	Brief note on equality constraints in pure dual SAO settings. Structural and Multidisciplinary Optimization, 2019, 59, 1853-1861.	3.5	1
51	A separable augmented Lagrangian algorithm for optimal structural design. Structural and Multidisciplinary Optimization, 2020, 61, 343-352.	3.5	1
52	Global optimization using dynamic search trajectories. Network Optimization Problems: Algorithms, Applications and Complexity, 2002, , 123-132.	0.1	1
53	Reference frame and scale invariant real-parameter genetic and differential evolution algorithms. , 2007, , .		0
54	Semi-analytical elements for radially symmetric problems. Computers and Structures, 2007, 85, 1445-1452.	4.4	0

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55	On convex transformability and the solution of nonconvex problems via the dual of Falk. Structural and Multidisciplinary Optimization, 2012, 46, 171-185.	3.5	0
56	A multi-start methodology for constrained global optimization using novel constrained local optimizers. Nonconvex Optimization and Its Applications, 2004, , 499-516.	0.1	0