

Bret Stanford

List of Publications by Year in descending order

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68
papers

1,263
citations

430754

18
h-index

454834

30
g-index

68
all docs

68
docs citations

68
times ranked

641
citing authors

#	ARTICLE	IF	CITATIONS
1	Fixed membrane wings for micro air vehicles: Experimental characterization, numerical modeling, and tailoring. <i>Progress in Aerospace Sciences</i> , 2008, 44, 258-294.	6.3	142
2	Flapping Wing Structural Deformation and Thrust Correlation Study with Flexible Membrane Wings. <i>AIAA Journal</i> , 2010, 48, 2111-2122.	1.5	77
3	Aeroelastic topology optimization of membrane structures for micro air vehicles. <i>Structural and Multidisciplinary Optimization</i> , 2009, 38, 301-316.	1.7	71
4	Static Aeroelastic Model Validation of Membrane Micro Air Vehicle Wings. <i>AIAA Journal</i> , 2007, 45, 2828-2837.	1.5	67
5	Investigation of Membrane Actuation for Roll Control of a Micro Air Vehicle. <i>Journal of Aircraft</i> , 2007, 44, 741-749.	1.7	62
6	Aeroelastic Topology Optimization of Blade-Stiffened Panels. <i>Journal of Aircraft</i> , 2014, 51, 938-944.	1.7	52
7	Uncertainty Quantification in Aeroelasticity. <i>Annual Review of Fluid Mechanics</i> , 2017, 49, 361-386.	10.8	50
8	Aerothermoelastic topology optimization with flutter and buckling metrics. <i>Structural and Multidisciplinary Optimization</i> , 2013, 48, 149-171.	1.7	43
9	Direct flutter and limit cycle computations of highly flexible wings for efficient analysis and optimization. <i>Journal of Fluids and Structures</i> , 2013, 36, 111-123.	1.5	40
10	Uncertainty Quantification in Aeroelasticity. <i>Lecture Notes in Computational Science and Engineering</i> , 2013, , 59-103.	0.1	39
11	Simultaneous Topology Optimization of Membrane Wings and Their Compliant Flapping Mechanisms. <i>AIAA Journal</i> , 2013, 51, 1431-1441.	1.5	33
12	Conceptual Design of Compliant Mechanisms for Flapping Wings with Topology Optimization. <i>AIAA Journal</i> , 2011, 49, 855-867.	1.5	30
13	Optimal Structural Topology of a Platelike Wing for Subsonic Aeroelastic Stability. <i>Journal of Aircraft</i> , 2011, 48, 1193-1203.	1.7	27
14	Shape, Structure, and Kinematic Parameterization of a Power-Optimal Hovering Wing. <i>Journal of Aircraft</i> , 2012, 49, 1687-1699.	1.7	27
15	Stabilization of Flapping-Wing Micro-Air Vehicles in Gust Environments. <i>Journal of Guidance, Control, and Dynamics</i> , 2014, 37, 592-607.	1.6	27
16	Aeroelastic Tailoring of the NASA Common Research Model via Novel Material and Structural Configurations. , 2014, , .		26
17	Computational strategies for reliability-based structural optimization of aeroelastic limit cycle oscillations. <i>Structural and Multidisciplinary Optimization</i> , 2012, 45, 83-99.	1.7	24
18	Adjoint sensitivities of time-periodic nonlinear structural dynamics via model reduction. <i>Computers and Structures</i> , 2010, 88, 1110-1123.	2.4	23

#	ARTICLE	IF	CITATIONS
19	A Computational and Experimental Studies of Flexible Wing Aerodynamics. , 2010, , .		23
20	Aeroelastic Optimization of Flapping Wing Venation: A Cellular Division Approach. AIAA Journal, 2012, 50, 938-951.	1.5	21
21	A Multidisciplinary Experimental Study of Flapping Wing Aeroelasticity in Thrust Production. , 2009, , .		20
22	Aeroelastic Tailoring of Transport Wings Including Transonic Flutter Constraints. , 2015, , .		20
23	Formulation of Analytical Design Derivatives for Nonlinear Unsteady Aeroelasticity. AIAA Journal, 2011, 49, 598-610.	1.5	18
24	Optimal Flapping-Wing Vehicle Dynamics via Floquet Multiplier Sensitivities. Journal of Guidance, Control, and Dynamics, 2013, 36, 454-466.	1.6	16
25	Passive Bending and Twisting Motion during the Flapping Stroke of a Micro Elastic Wing for Thrust Production. , 2009, , .		15
26	Multi-Objective Topology Optimization of Wing Skeletons for Aeroelastic Membrane Structures. International Journal of Micro Air Vehicles, 2009, 1, 51-69.	1.0	15
27	Optimal Compliant Flapping Mechanism Topologies With Multiple Load Cases. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	1.7	15
28	Stability and power optimality in time-periodic flapping wing structures. Journal of Fluids and Structures, 2013, 38, 238-254.	1.5	15
29	Aerostructural Level Set Topology Optimization for a Common Research Model Wing. , 2014, , .		14
30	Level-Set Topology Optimization with Aeroelastic Constraints. , 2015, , .		14
31	Static Aeroelastic Model Validation of Membrane Micro Air Vehicle Wings. , 2007, , .		13
32	Development of a Composite Bendable-Wing Micro Air Vehicle. , 2007, , .		12
33	Optimal Kinematics of Hovering Insect Flight for Minimum Mechanical Power. , 2010, , .		12
34	Structural Optimization of Platelike Aircraft Wings Under Flutter and Divergence Constraints. AIAA Journal, 2018, 56, 3307-3319.	1.5	12
35	Flutter Analysis with Stabilized Finite Elements based on the Linearized Frequency-domain Approach. , 2020, , .		12
36	Experimental Analysis of Deformation for Flexible-Wing Micro Air Vehicles. , 2005, , .		11

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37	Wind Tunnel Testing of Load-Alleviating Membrane Wings at Low Reynolds Numbers. , 2009, , .		11
38	Optimal thickness distributions of aeroelastic flapping shells. Aerospace Science and Technology, 2013, 24, 116-127.	2.5	11
39	Optimal actuation of nonlinear resonant systems. Structural and Multidisciplinary Optimization, 2010, 41, 65-86.	1.7	10
40	Shape, Structure, and Kinematic Parameterization of a Power-Optimal Hovering Wing. , 2010, , .		10
41	Sensitivity Analysis for Optimization of Dynamic Systems with Reduced Order Modeling. , 2010, , .		9
42	Cost Reduction Techniques for the Structural Design of Nonlinear Flapping Wings. , 2009, , .		8
43	Formulation of Analytical Design Derivatives for Nonlinear Unsteady Aeroelasticity. , 2010, , .		7
44	Membrane Micro Air Vehicles with Adaptive Aerodynamic Twist: Numerical Modeling. Journal of Aerospace Engineering, 2009, 22, 173-184.	0.8	6
45	Conceptual Design of a Bendable UAV Wing Considering Aerodynamic and Structural Performance. , 2009, , .		5
46	Minimum-mass panels under probabilistic aeroelastic flutter constraints. Finite Elements in Analysis and Design, 2013, 70-71, 15-26.	1.7	5
47	Multidisciplinary Shape and Layup Optimization of a Bendable Composite UAV Wing. , 2009, , .		4
48	Multidisciplinary Optimization of a Hovering Wing with a Service-Oriented Framework and Experimental Model Validation. , 2011, , .		4
49	Optimal Topology of Aircraft Rib and Spar Structures under Aeroelastic Loads. , 2014, , .		4
50	Proper Orthogonal Decomposition of Flexible Clap and Fling Motions via High-Speed Deformation Measurements. , 2010, , .		3
51	Deterministic Design Optimization of a Bendable Load Stiffened UAV Wing. , 2010, , .		3
52	Variable-Fidelity Kinematic Optimization of a Two-Dimensional Hovering Wing. , 2011, , .		3
53	Simultaneous Topology Optimization of Membrane Wings and Their Compliant Flapping Mechanisms. , 2012, , .		3
54	Three-Dimensional Topologies of Compliant Flapping Mechanisms. Journal of Aerospace Engineering, 2014, 27, 06014001.	0.8	3

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55	Flow Characteristics of a Three-Dimensional Fixed Micro Air Vehicle Wing. , 2008, , .		2
56	Analytical Sensitivity Analysis of an Unsteady Vortex Lattice Method for Flapping Wing Optimization. , 2009, , .		2
57	Aeroelastic Optimization of Flapping Wing Venation: a Cellular Division Approach. , 2011, , .		2
58	The Complicating Effect of Uncertain Flapping Wing Kinematics on Model Validation. International Journal of Micro Air Vehicles, 2011, 3, 143-148.	1.0	2
59	Aeroelastic Topology Optimization of Blade-Stiffened Panels. , 2013, , .		2
60	Aeroelastic Wingbox Stringer Topology Optimization. , 2017, , .		2
61	Aeroelastic Topology Optimization of Membrane Structures for Micro Air Vehicles. , 2008, , .		1
62	Limit Cycle Oscillations of a Structurally-Optimized Cantilevered Wing. , 2010, , .		1
63	Stability and Power Optimality in Time-Periodic Flapping Wing Structures. , 2012, , .		1
64	Conceptual Design of Compliant Mechanisms for Flapping Wings with Topology Optimization. , 2010, , .		1
65	A Bendable Load Stiffened Wing for Small UAVs. International Journal of Micro Air Vehicles, 2010, 2, 239-253.	1.0	0
66	Optimal Structural Topology of a Plate-Like Wing for Subsonic Aeroelastic Stability. , 2010, , .		0
67	Optimal Compliant Flapping Mechanism Topologies with Multiple Load Cases. , 2011, , .		0
68	Gradient-Enhanced Reliability Analysis of Transonic Aeroelastic Flutter. , 2022, , .		0