Inderjit Chopra

List of Publications by Year in descending order

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INDEDIIT CHODDA

#	Article	IF	CITATIONS
1	Three-Dimensional Strains on Twisted and Swept Composite Rotor Blades in Vacuum. Journal of Aircraft, 2021, 58, 1-16.	1.7	4
2	Performance Analysis and Optimization of a Vertical-Axis Wind Turbine with a High Tip-Speed Ratio. Energies, 2021, 14, 996.	1.6	10
3	High-Fidelity Aeromechanical Analysis of Coaxial Mars Helicopter. Journal of Aircraft, 2021, 58, 609-623.	1.7	15
4	Unsteady Aerodynamic Characteristics of Pitching Flat Plates at Low Reynolds Numbers. Journal of Aircraft, 2021, 58, 917-934.	1.7	3
5	High-Fidelity Aeromechanics of Future Mars Helicopters. , 2020, , .		2
6	Basic Understanding of Airfoil Characteristics at Low Reynolds Numbers (104–105). Journal of Aircraft, 2018, 55, 1050-1061.	1.7	179
7	Basic Understanding of Unsteady Airfoil Aerodynamics at Low Reynolds Numbers. , 2018, , .		1
8	Flowfield measurements of reverse flow on a high advance ratio rotor. Experiments in Fluids, 2018, 59, 1.	1.1	10
9	Rotation-Frequency-Driven Extension–Torsion Coupled Self-Twisting Rotor Blades. Journal of Aircraft, 2018, 55, 1929-1941.	1.7	7
10	Refined lightweight inertial navigation system for micro air vehicle applications. International Journal of Micro Air Vehicles, 2017, 9, 124-135.	1.0	5
11	Compact Piezo-Hydraulic Hybrid Actuator. , 2017, , 70-81.		0
12	Hover Performance of a Small-Scale Helicopter Rotor for Flying on Mars. Journal of Aircraft, 2016, 53, 1160-1167.	1.7	47
13	Design, development, and flight testing of a high endurance micro quadrotor helicopter. International Journal of Micro Air Vehicles, 2016, 8, 155-169.	1.0	18
14	Computational investigation of insect-based flapping wings for micro air vehicle applications. International Journal of Micro Air Vehicles, 2016, 8, 64-78.	1.0	12
15	Experiments on Rigid Wing Undergoing Hover-Capable Flapping Kinematics at Micro-Air-Vehicle-Scale Reynolds Numbers. AIAA Journal, 2016, 54, 1145-1157.	1.5	8
16	Experimental Investigation of Micro Air Vehicle Scale Helicopter Rotor in Hover. International Journal of Micro Air Vehicles, 2015, 7, 231-255.	1.0	28
17	Identification of Flight Dynamics of a Cylcocopter Micro Air Vehicle in Hover. Journal of Aircraft, 2015, 52, 116-129.	1.7	14
18	Experimental and Computational Analysis of Rigid Flapping Wings for Micro Air Vehicles. Journal of Aircraft, 2015, 52, 1161-1178.	1.7	12

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19	Perimeter-Based Polar Scan Matching (PB-PSM) for 2D Laser Odometry. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 80, 231-254.	2.0	13
20	Aeroelastic Analysis of Avian-Based Flexible Flapping Wings for Micro Air Vehicles. Journal of the American Helicopter Society, 2015, 60, 1-18.	0.5	3
21	Gramian Analysis of a Shrouded Rotor Micro Air Vehicle in Hover. Journal of Guidance, Control, and Dynamics, 2014, 37, 1684-1691.	1.6	6
22	Development of a Micro Twin-Rotor Cyclocopter Capable of Autonomous Hover. Journal of Aircraft, 2014, 51, 672-676.	1.7	19
23	Design and Performance of a Quad-Shrouded Rotor Micro Air Vehicle. Journal of Aircraft, 2014, 51, 779-791.	1.7	16
24	Design, Performance and Testing of a Quad Rotor Biplane Micro Air Vehicle for Multi Role Missions. International Journal of Micro Air Vehicles, 2014, 6, 155-173.	1.0	30
25	Flow field studies on a micro-air-vehicle-scale cycloidal rotor in forward flight. Experiments in Fluids, 2014, 55, 1.	1.1	12
26	Effect of Flow Curvature on Forward Flight Performance of a Micro-Air-Vehicle-Scale Cycloidal-Rotor. AIAA Journal, 2014, 52, 1159-1169.	1.5	30
27	Effect of Rotor Geometry and Blade Kinematics on Cycloidal Rotor Hover Performance. Journal of Aircraft, 2013, 50, 1340-1352.	1.7	42
28	Investigation of Trailing-Edge Flap Gap Effects on Rotor Performance Using High-Fidelity Analysis. Journal of Aircraft, 2013, 50, 140-151.	1.7	9
29	Design, Development, and Flight Test of a Small-Scale Cyclogyro UAV Utilizing a Novel Cam-Based Passive Blade Pitching Mechanism. International Journal of Micro Air Vehicles, 2013, 5, 145-162.	1.0	17
30	Experimental Investigation of Performance of a Wing-Propeller System for a Quad-Rotor-Biplane Micro Air Vehicle. , 2013, , .		5
31	Design and Testing of a Quad Shrouded Rotor Micro Air Vehicle in Hover. , 2012, , .		10
32	Experimental and Computational Studies to Understand the Role of Flow Curvature Effects on the Aerodynamic Performance of a MAV-Scale Cycloidal Rotor in Forward Flight. , 2012, , .		6
33	Performance, Flight Testing of a Shrouded Rotor Micro Air Vehicle in Edgewise Gusts. Journal of Aircraft, 2012, 49, 193-205.	1.7	14
34	Experimental Studies to Understand the Hover and Forward Flight Performance of a MAV-Scale Flapping Wing Concept. Journal of the American Helicopter Society, 2012, 57, 1-11.	0.5	7
35	Investigation of Trailing-Edge Flap Gap Effects on Rotor Performance Using CFD-CSD Coupling. , 2012, ,		2
36	Experimental Optimization and Performance Analysis of a MAV Scale Cycloidal Rotor. , 2011, , .		3

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37	Aeroelastic Analysis of a Micro-Air-Vehicle-Scale Cycloidal Rotor in Hover. AIAA Journal, 2011, 49, 2430-2443.	1.5	41
38	Experimental Optimization of MAV-Scale Cycloidal Rotor Performance. Journal of the American Helicopter Society, 2011, 56, 22005-2200511.	0.5	27
39	Aeromechanics and Control of a Shrouded Rotor Micro Air Vehicle in Hover and in Edgewise Flow. Journal of the American Helicopter Society, 2011, 56, 1-14.	0.5	6
40	Design, Development, and Testing of a Shrouded Single-Rotor Micro Air Vehicle with Antitorque Vanes. Journal of the American Helicopter Society, 2011, 56, 12008-1200811.	0.5	21
41	Closed-Loop Test of a Rotor with Individually Controlled Trailing-Edge Flaps for Vibration Reduction. Journal of the American Helicopter Society, 2010, 55, 12009-1200912.	0.5	16
42	Performance of a Cycloidal Rotor Concept for Micro Air Vehicle Applications. Journal of the American Helicopter Society, 2010, 55, 22002-2200214.	0.5	56
43	Improving the Aerodynamic Performance of Micro-Air-Vehicle-Scale Cycloidal Rotor: An Experimental Approach. Journal of Aircraft, 2010, 47, 1117-1125.	1.7	64
44	Performance of Swashplateless Helicopter Rotor with Trailing-Edge Flaps for Primary Flight Control. Journal of the American Helicopter Society, 2010, 55, 042005.	0.5	7
45	Computational Fluid Dynamics—Computational Structural Dynamics Analysis of Active Control of Helicopter Rotor for Performance Improvement. Journal of the American Helicopter Society, 2010, 55, 042004.	0.5	26
46	Examination of Rotor Loads due to On-Blade Active Controls for Performance Enhancement. Journal of Aircraft, 2010, 47, 2049-2066.	1.7	13
47	Aeroelastic Analysis of a MAV-Scale Cycloidal Rotor. , 2010, , .		10
48	Hover Tests of Micro Aerial Vehicle-Scale Shrouded Rotors, Part I: Performance Characteristics. Journal of the American Helicopter Society, 2009, 54, 12001-1200128.	0.5	17
49	Hover Tests of Micro Aerial Vehicle-Scale Shrouded Rotors, Part II: Flow Field Measurements. Journal of the American Helicopter Society, 2009, 54, 12002-1200226.	0.5	7
50	Insect-Based Hover-Capable Flapping Wings for Micro Air Vehicles: Experiments and Analysis. AIAA Journal, 2008, 46, 2115-2135.	1.5	108
51	Structural Dynamics Analysis of Thin-Walled, Pretwisted Composite Blades with Spanwise Taper. , 2008, , .		1
52	Wind-Tunnel Testing of Rotor with Individually Controlled Trailing-Edge Flaps for Vibration Reduction. Journal of Aircraft, 2008, 45, 868-879.	1.7	23
53	Wind Tunnel Test of Five Sets of Mach Scale Composite Tailored Rotor with Flap-Bending/Torsion Couplings for Vibration Reduction. Journal of the American Helicopter Society, 2008, 53, 215.	0.5	10
54	Hover Performance of a Micro Air Vehicle: Rotors at Low Reynolds Number. Journal of the American Helicopter Society, 2007, 52, 254-262.	0.5	80

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55	Review of Rotor Loads Prediction with the Emergence of Rotorcraft CFD. Journal of the American Helicopter Society, 2007, 52, 287.	0.5	50
56	Analysis of Elastically Coupled Non-Uniform Thin-Walled Composite Beams with Pretwist and Taper. , 2007, , .		0
57	Modeling and Experimental Characterization of SMA Torsional Actuators. Journal of Intelligent Material Systems and Structures, 2007, 18, 29-38.	1.4	24
58	Development of Mach Scale Rotors with Tailored Composite Coupling for Vibration Reduction. Journal of Aircraft, 2006, 43, 922-931.	1.7	9
59	Swashplateless Helicopter Rotor System with Trailing-Edge Flaps for Flight and Vibration Controls. Journal of Aircraft, 2006, 43, 346-352.	1.7	20
60	Investigation of active materials as driving elements of a hydraulic hybrid actuator. , 2005, , .		13
61	Investigation of the Dynamic Characteristics of a Piezohydraulic Actuator. Journal of Intelligent Material Systems and Structures, 2005, 16, 481-492.	1.4	38
62	Piezobimorph Actuated Servotab for Controlling a Trailing Edge Flap. , 2005, , .		4
63	Methodology for In-Flight Tracking of Helicopter Rotor Blades Using Shape Memory Alloy Actuators. Journal of the American Helicopter Society, 2004, 49, 192-200.	0.5	2
64	Swashplateless Helicopter Rotor with Trailing-Edge Flaps. Journal of Aircraft, 2004, 41, 208-214.	1.7	26
65	Aeroelastic Modeling of Trailing-Edge-Flap Helicopter Rotors Including Actuator Dynamics. Journal of Aircraft, 2004, 41, 1465-1472.	1.7	14
66	Design and testing of a bidirectional magnetostrictive-hydraulic hybrid actuator. , 2004, 5390, 483.		14
67	Swashplateless Helicopter Rotor System with Active Trailing-Edge Flaps for Primary and Vibration Controls. , 2004, , .		4
68	Performance Modeling of a Piezohydraulic Actuator. , 2003, , .		3
69	Design and Hover Test of Low Vibration Mach Scale Rotor with Twisted Composite Tailored Blade. , 2003, , .		1
70	Aeroelastic Stability of Trailing-Edge Flap Helicopter Rotors. Journal of the American Helicopter Society, 2003, 48, 236-243.	0.5	24
71	Individual Blade Control Methodology for a Rotor with Dissimilar Blades. Journal of the American Helicopter Society, 2003, 48, 176-185.	0.5	10
72	Hover Test of Mach-Scale Active Twist Rotor Using Piezo-Bending-Torsion Actuators. Journal of Aircraft, 2002, 39, 678-688.	1.7	10

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73	Hover Test of a Mach-Scale Rotor Model with Active Blade Tips. Journal of the American Helicopter Society, 2002, 47, 273.	0.5	5
74	Review of State of Art of Smart Structures and Integrated Systems. AIAA Journal, 2002, 40, 2145-2187.	1.5	703
75	Refined Structural Model for Thin- and Thick-Walled Composite Rotor Blades. AIAA Journal, 2002, 40, 105-116.	1.5	97
76	Robust Individual Blade Control Algorithm for a Dissimilar Rotor. Journal of Guidance, Control, and Dynamics, 2002, 25, 915-923.	1.6	8
77	Actuation Requirements for a Swashplateless Helicopter Control System. , 2002, , .		5
78	Characterization of SMA Torsional Actuators for Active Twist of Tilt Rotor Blades. , 2002, , .		7
79	Review of state-of-art of smart structures and integrated systems. , 2001, , .		2
80	Aeroelastic stability of smart trailing-edge flap helicopter rotors. , 2001, , .		6
81	Refined Structural Dynamics Model for Composite Rotor Blades. AIAA Journal, 2001, 39, 339-348.	1.5	56
82	In-flight tracking of helicopter rotor blades using shape memory alloy actuators. Smart Materials and Structures, 2001, 10, 104-111.	1.8	78
83	<title>Design of a bidirectional piezoelectric actuator for blade trailing-edge flap</title> . , 2001, 4327, 36.		3
84	Design of piezostack-driven trailing-edge flap actuator for helicopter rotors. Smart Materials and Structures, 2001, 10, 15-24.	1.8	73
85	Open-loop hover and wind tunnel testing of Mach-scaled rotor with trailing-edge flaps. , 2001, , .		8
86	Analysis of a bending-torsion coupled actuator for a smart rotor with active blade tips. Smart Materials and Structures, 2001, 10, 35-52.	1.8	40
87	Status of Application of Smart Structures Technology to Rotorcraft Systems. Journal of the American Helicopter Society, 2000, 45, 228-252.	0.5	149
88	Design Issues of a High-Stroke, On-Blade Piezostack Actuator for a Helicopter Rotor with Trailing-Edge Flaps. Journal of Intelligent Material Systems and Structures, 2000, 11, 328-342.	1.4	17
89	Aeroelastic modeling of trailing-edge flaps with smart material actuators. , 2000, , .		9
90	Analysis and testing of Mach scaled rotor model with piezoelectric bender actuated trailing-edge flaps for helicopter vibration control. , 1999, , .		6

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91	Assessment of Composite Rotor Blade Modeling Techniques. Journal of the American Helicopter Society, 1999, 44, 188-205.	0.5	115
92	Adaptive Neurocontrol of Simulated Rotor Vibrations Using Trailing Edge Flaps. Journal of Intelligent Material Systems and Structures, 1999, 10, 855-871.	1.4	16
93	Design and spin testing of an active trailing edge flap actuated with piezostacks. , 1999, , .		8
94	<title>Experimental characterization of Ni-Ti shape memory alloy wires under complex loading conditions</title> . , 1999, , .		7
95	Trailing Edge Flap Activated by a Piezo-Induced Bending-Torsion Coupled Beam. Journal of the American Helicopter Society, 1999, 44, 3-15.	0.5	25
96	<title>Design and testing of a piezostack-actuated leading-edge flap</title> . , 1999, , .		2
97	<title>Development and validation of a refined piezostack-actuated trailing-edge flap actuator for a helicopter rotor</title> . , 1999, , .		8
98	<title>Fundamental understanding of piezoelectric strain sensors</title> ., 1999,,.		8
99	A refined structural dynamics model for composite rotor blades. , 1999, , .		2
100	In-flight tracking of helicopter rotor blades using shape memory alloy actuators. , 1999, , .		5
101	<title>Shape memory alloy actuators for in-flight tracking of helicopter rotor blades</title> . , 1998, ,		9
102	Hover Testing of Active Rotor Blade-Tips Using a Piezo-Induced Bending-Torsion Coupled Beam. Journal of Intelligent Material Systems and Structures, 1998, 9, 963-974.	1.4	22
103	Aeroelastic Stability Investigation of a Composite Hingeless Rotor in Hover. Journal of Aircraft, 1998, 35, 791-797.	1.7	7
104	Hover testing of an active rotor blade tip and structural analysis of the actuator beam. , 1998, , .		7
105	<title>Fundamental behavior of piezoceramic sheet actuators</title> ., 1998, 3329, 626.		7
106	<title>Design and static testing of a trailing-edge flap actuator with piezostacks for a rotor blade</title> ., 1998, 3329, 321.		14
107	A Parametric Design Study for Actively Controlled Trailing Edge Flaps. Journal of the American Helicopter Society, 1998, 43, 110.	0.5	34
108	Rotors with Trailing Edge Flaps: Analysis and Comparison with Experimental Data. Journal of the American Helicopter Society, 1998, 43, 319-332.	0.5	73

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109	Wind Tunnel Test of a Smart Rotor Model with Individual Blade Twist Control. Journal of Intelligent Material Systems and Structures, 1997, 8, 414-425.	1.4	51
110	Hover Testing of Smart Rotor with Induced-Strain Actuation of Blade Twist. AIAA Journal, 1997, 35, 6-16.	1.5	72
111	Aeroelastic Tailoring of Composite Couplings and Blade Geometry of a Helicopter Rotor Using Optimization Methods. Journal of the American Helicopter Society, 1997, 42, 218-228.	0.5	25
112	Analysis and Testing of a Froude Scaled Helicopter Rotor with Piezoelectric Bender Actuated Trailing Edge Flaps. Journal of Intelligent Material Systems and Structures, 1997, 8, 555-570.	1.4	23
113	Bending and torsion models of beams with induced-strain actuators. Smart Materials and Structures, 1996, 5, 98-113.	1.8	70
114	Wind tunnel testing of a smart rotor with induced-strain actuation of blade twist. , 1996, , .		4
115	Aeroelastic Optimization of an Advanced Geometry Helicopter Rotor. Journal of the American Helicopter Society, 1996, 41, 18-28.	0.5	21
116	<title>Development of a smart moving blade tip activated by a piezo-induced bending-torsion coupled beam</title> . , 1996, 2717, 63.		12
117	Aeroelastic stability testing and validation of a composite hingeless rotor in hover. , 1996, , .		2
118	Aeroelastic optimization of a helicopter rotor with two-cell composite blades. AIAA Journal, 1996, 34, 835-841.	1.5	40
119	Modeling piezoceramic actuation of beams in torsion. AIAA Journal, 1996, 34, 2582-2589.	1.5	32
120	Induced strain actuation of composite beams and rotor blades with embedded piezoceramic elements. Smart Materials and Structures, 1996, 5, 35-48.	1.8	70
121	Design of high force, high displacement actuators for helicopter rotors. Smart Materials and Structures, 1996, 5, 58-67.	1.8	37
122	Advances in the development of an intelligent helicopter rotor employing smart trailing-edge flaps. Smart Materials and Structures, 1996, 5, 11-25.	1.8	29
123	Aeroelastic Analysis of a Composite Bearingless Rotor in Forward Flight Using an Improved Warping Model. Journal of the American Helicopter Society, 1995, 40, 80-91.	0.5	23
124	Aeroelastic optimization of a helicopter rotor with composite coupling. Journal of Aircraft, 1995, 32, 1326-1334.	1.7	36
125	Torsional actuation with extension-torsion composite coupling and a magnetostrictive actuator. AIAA Journal, 1995, 33, 723-729.	1.5	26
126	Design and analysis trends of helicopter rotor systems. Sadhana - Academy Proceedings in Engineering Sciences, 1994, 19, 427-466.	0.8	2

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127	Design and testing of a helicopter rotor model with smart trailing edge flaps. , 1994, , .		23
128	An Analytical Model for a Nonlinear Elastomeric Lag Damper and Its Effect on Aeromechanical Stability in Hover. Journal of the American Helicopter Society, 1994, 39, 59-69.	0.5	31
129	Multi-objective optimization of a composite helicopter rotor. , 1994, , .		3
130	Aeroelastic Response, Loads, and Stability of a Composite Rotor in Forward Flight. AIAA Journal, 1993, 31, 1265-1273.	1.5	53
131	Analytical-experimental investigation of free-vibration characteristics of rotating composite l-beams. Journal of Aircraft, 1993, 30, 927-934.	1.7	16
132	Structural modeling of composite beams with induced-strain actuators. AIAA Journal, 1993, 31, 1692-1701.	1.5	87
133	Air and Ground Resonance of Helicopters with Elastically Tailored Composite Rotor Blades. Journal of the American Helicopter Society, 1993, 38, 50-61.	0.5	29
134	<title>Feasibility study to build a smart rotor: trailing edge flap actuation</title> . , 1993, 1917, 225.		25
135	<title>Feasibility study to build a smart rotor: induced-strain actuation of airfoil twisting using piezoceramic crystals</title> . , 1993, 1917, 238.		16
136	Aeromechanical Stability of A Bearingless Composite Rotor In Forward Flight. , 1993, , .		6
137	EFFECT OF MODELING TECHNIQUES IN THE COUPLED ROTOR-BODY VIBRATION ANALYSIS. , 1993, , .		10
138	Aeroelastic response and blade loads of a composite rotor in forwardflight. , 1992, , .		12
139	Structural behavior of two-cell composite rotor blades with elastic couplings. AIAA Journal, 1992, 30, 2914-2921.	1.5	62
140	Aeroelastic Analysis of Swept, Anhedral, and Tapered Tip Rotor Blades. Journal of the American Helicopter Society, 1992, 37, 15-30.	0.5	27
141	Experimental-theoretical investigation of the vibration characteristics of rotating composite box beams. Journal of Aircraft, 1992, 29, 657-664.	1.7	101
142	Structural response of composite beams and blades with elastic couplings. Composites Part B: Engineering, 1992, 2, 347-374.	0.6	77
143	Experimental and theoretical analysis of composite I-beams with elastic couplings. AIAA Journal, 1991, 29, 2197-2206.	1.5	129

Experimental and theoretical analysis of composite I-beams with elastic couplings. , 1991, , .

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145	Formulation and Evaluation of an Analytical Model for Composite Boxâ€Beams. Journal of the American Helicopter Society, 1991, 36, 23-35.	0.5	225
146	Blade Response Calculations Using Threeâ€Dimensional Aerodynamic Modeling. Journal of the American Helicopter Society, 1991, 36, 68-77.	0.5	10
147	Rotor Loads Prediction Utilizing a Coupled Aeroelastic Analysis with Refined Aerodynamic Modeling. Journal of the American Helicopter Society, 1991, 36, 58-67.	0.5	19
148	An analytical model for composite box-beams including thermal effects. , 1991, , .		2
149	Hingeless Rotor Aeroelastic Stability Analysis with Refined Aerodynamic Modeling. Journal of the American Helicopter Society, 1991, 36, 48-56.	0.5	0
150	Application of Higher Harmonic Control to Rotors Operating at High Speed and Thrust. Journal of the American Helicopter Society, 1990, 35, 78-89.	0.5	59
151	Thin-walled composite beams under bending, torsional, and extensional loads. Journal of Aircraft, 1990, 27, 619-626.	1.7	209
152	Formulation and Evaluation of An Analytical Model for Composite Box-Beams. , 1990, , .		25
153	Helicopter Response to Atmospheric Turbulence in Forward Flight. Journal of the American Helicopter Society, 1990, 35, 51-59.	0.5	6
154	Circulation Control Airfoils in an Unsteady Flow. Journal of the American Helicopter Society, 1988, 33, 28-37.	0.5	10
155	Aeroelastic Stability Analysis of a Composite Bearingless Rotor Blade. Journal of the American Helicopter Society, 1986, 31, 29-35.	0.5	55
156	Aeroelastic Stability Analysis of a Composite Bearingless Rotor Blade. Journal of the American Helicopter Society, 1986, 31, 29-35.	0.5	35
157	Aeroelastic Stability Analysis of a Composite Rotor Blade. Journal of the American Helicopter Society, 1985, 30, 57-67.	0.5	127
158	Finite Element Analysis for Bearingless Rotor Blade Aeroelasticity. Journal of the American Helicopter Society, 1984, 29, 42-51.	0.5	57
159	Applications of Active Materials in Integrated Systems. , 0, , 739-896.		0
160	Coupled Aeroelastic Study of a Flexible Micro Air Vehicle-Scale Flapping Wing in Hovering Flight. Journal of Aircraft, 0, , 1-19.	1.7	2