

Douglas L Altshuler

List of Publications by Year in descending order

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Version: 2024-02-01

71
papers

3,160
citations

172207

29
h-index

168136

53
g-index

76
all docs

76
docs citations

76
times ranked

2640
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular Phylogenetics and the Diversification of Hummingbirds. <i>Current Biology</i> , 2014, 24, 910-916.	1.8	341
2	Phylogenetic Systematics and Biogeography of Hummingbirds: Bayesian and Maximum Likelihood Analyses of Partitioned Data and Selection of an Appropriate Partitioning Strategy. <i>Systematic Biology</i> , 2007, 56, 837-856.	2.7	241
3	Short-amplitude high-frequency wing strokes determine the aerodynamics of honeybee flight. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 18213-18218.	3.3	198
4	Resolution of a paradox: Hummingbird flight at high elevation does not come without a cost. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 17731-17736.	3.3	141
5	The ecological and evolutionary interface of hummingbird flight physiology. <i>Journal of Experimental Biology</i> , 2002, 205, 2325-2336.	0.8	107
6	Kinematics of hovering hummingbird flight along simulated and natural elevational gradients. <i>Journal of Experimental Biology</i> , 2003, 206, 3139-3147.	0.8	97
7	Aerodynamic forces of revolving hummingbird wings and wing models. <i>Journal of Zoology</i> , 2004, 264, 327-332.	0.8	96
8	The physiology and biomechanics of avian flight at high altitude. <i>Integrative and Comparative Biology</i> , 2006, 46, 62-71.	0.9	95
9	Power reduction and the radial limit of stall delay in revolving wings of different aspect ratio. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150051.	1.5	91
10	Hummingbird wing efficacy depends on aspect ratio and compares with helicopter rotors. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140585.	1.5	87
11	The biophysics of bird flight: functional relationships integrate aerodynamics, morphology, kinematics, muscles, and sensors. <i>Canadian Journal of Zoology</i> , 2015, 93, 961-975.	0.4	78
12	A higher-level taxonomy for hummingbirds. <i>Journal of Ornithology</i> , 2009, 150, 155-165.	0.5	67
13	Novel interactions of non-pollinating ants with pollinators and fruit consumers in a tropical forest. <i>Oecologia</i> , 1999, 119, 600-606.	0.9	66
14	Take-off mechanics in hummingbirds (Trochilidae). <i>Journal of Experimental Biology</i> , 2004, 207, 1345-1352.	0.8	66
15	Flight Performance and Competitive Displacement of Hummingbirds across Elevational Gradients. <i>American Naturalist</i> , 2006, 167, 216-229.	1.0	65
16	The ecological and evolutionary interface of hummingbird flight physiology. <i>Journal of Experimental Biology</i> , 2002, 205, 2325-36.	0.8	65
17	Wake patterns of the wings and tail of hovering hummingbirds. <i>Experiments in Fluids</i> , 2009, 46, 835-846.	1.1	58
18	Fiber type homogeneity of the flight musculature in small birds. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2009, 152, 324-331.	0.7	58

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19	Allometry of hummingbird lifting performance. <i>Journal of Experimental Biology</i> , 2010, 213, 725-734.	0.8	58
20	Morphology, muscle capacity, skill, and maneuvering ability in hummingbirds. <i>Science</i> , 2018, 359, 653-657.	6.0	56
21	Wingbeat kinematics and motor control of yaw turns in Anna's hummingbirds (<i>Calypte anna</i>). <i>Journal of Experimental Biology</i> , 2012, 215, 4070-84.	0.8	54
22	Oxygen consumption rates in hovering hummingbirds reflect substrate-dependent differences in P/O ratios: carbohydrate as a 'premium fuel'. <i>Journal of Experimental Biology</i> , 2007, 210, 2146-2153.	0.8	53
23	Flower Color, Hummingbird Pollination, and Habitat Irradiance in Four Neotropical Forests1. <i>Biotropica</i> , 2003, 35, 344-355.	0.8	50
24	Of Hummingbirds and Helicopters: Hovering Costs, Competitive Ability, and Foraging Strategies. <i>American Naturalist</i> , 2004, 163, 16-25.	1.0	42
25	Hummingbirds control hovering flight by stabilizing visual motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 18375-18380.	3.3	42
26	Wing morphing allows gulls to modulate static pitch stability during gliding. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20180641.	1.5	39
27	Visual guidance of forward flight in hummingbirds reveals control based on image features instead of pattern velocity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 8849-8854.	3.3	38
28	Comparison of Visually Guided Flight in Insects and Birds. <i>Frontiers in Neuroscience</i> , 2018, 12, 157.	1.4	35
29	An Algorithmic Approach to Natural Behavior. <i>Current Biology</i> , 2020, 30, R663-R675.	1.8	35
30	Range of motion in the avian wing is strongly associated with flight behavior and body mass. <i>Science Advances</i> , 2019, 5, eaaw6670.	4.7	34
31	Visual-Cerebellar Pathways and Their Roles in the Control of Avian Flight. <i>Frontiers in Neuroscience</i> , 2018, 12, 223.	1.4	32
32	Birds can transition between stable and unstable states via wing morphing. <i>Nature</i> , 2022, 603, 648-653.	13.7	32
33	Maximal Horizontal Flight Performance of Hummingbirds: Effects of Body Mass and Molt. <i>Physiological and Biochemical Zoology</i> , 1999, 72, 145-155.	0.6	31
34	Hovering Flight in the Honeybee <i>Apis mellifera</i> : Kinematic Mechanisms for Varying Aerodynamic Forces. <i>Physiological and Biochemical Zoology</i> , 2014, 87, 870-881.	0.6	31
35	Wing Morphology and Flight Behavior of Some North American Hummingbird Species. <i>Auk</i> , 2005, 122, 872-886.	0.7	30
36	WING MORPHOLOGY AND FLIGHT BEHAVIOR OF SOME NORTH AMERICAN HUMMINGBIRD SPECIES. <i>Auk</i> , 2005, 122, 872.	0.7	30

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37	Burst muscle performance predicts the speed, acceleration, and turning performance of Anna's hummingbirds. <i>ELife</i> , 2015, 4, e11159.	2.8	29
38	Neuromuscular control of wingbeat kinematics in Anna's hummingbirds (<i>Calypte anna</i>). <i>Journal of Experimental Biology</i> , 2010, 213, 2507-2514.	0.8	28
39	Projected changes in elevational distribution and flight performance of montane Neotropical hummingbirds in response to climate change. <i>Global Change Biology</i> , 2011, 17, 1671-1680.	4.2	28
40	Hummingbirds generate bilateral vortex loops during hovering: evidence from flow visualization. <i>Experiments in Fluids</i> , 2013, 54, 1.	1.1	26
41	Neurons Responsive to Global Visual Motion Have Unique Tuning Properties in Hummingbirds. <i>Current Biology</i> , 2017, 27, 279-285.	1.8	24
42	Muscle Activation Patterns and Motor Anatomy of Anna's Hummingbirds (<i>Calypte anna</i>) and Zebra Finches (<i>Taeniopygia guttata</i>). <i>Physiological and Biochemical Zoology</i> , 2013, 86, 27-46.	0.6	22
43	The biomechanical origin of extreme wing allometry in hummingbirds. <i>Nature Communications</i> , 2017, 8, 1047.	5.8	22
44	Very low force-generating ability and unusually high temperature-dependency in hummingbird flight muscle fibers. <i>Journal of Experimental Biology</i> , 2013, 216, 2247-56.	0.8	20
45	Hummingbirds control turning velocity using body orientation and turning radius using asymmetrical wingbeat kinematics. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160110.	1.5	18
46	ECOLOGY AND EVOLUTION: Enhanced: Darwin's Hummingbirds. <i>Science</i> , 2003, 300, 588-589.	6.0	17
47	Observational Learning in Hummingbirds. <i>Auk</i> , 2001, 118, 795-799.	0.7	16
48	CONFLICTING TERMINOLOGY FOR WING MEASUREMENTS IN ORNITHOLOGY AND AERODYNAMICS. <i>Auk</i> , 2004, 121, 973.	0.7	13
49	Adaptations to life at high elevation: An introduction to the symposium. <i>Integrative and Comparative Biology</i> , 2006, 46, 3-4.	0.9	12
50	Mechanical Constraints on Flight at High Elevation Decrease Maneuvering Performance of Hummingbirds. <i>Current Biology</i> , 2016, 26, 3368-3374.	1.8	12
51	Flight muscle power increases with strain amplitude and decreases with cycle frequency in zebra finches (<i>Taeniopygia guttata</i>). <i>Journal of Experimental Biology</i> , 2020, 223, .	0.8	11
52	Visual Sensory Signals Dominate Tactile Cues during Docked Feeding in Hummingbirds. <i>Frontiers in Neuroscience</i> , 2017, 11, 622.	1.4	9
53	Spatial and Temporal Resolution of the Visual System of the Anna's Hummingbird (<i>Calypte anna</i>) Relative to Other Birds. <i>Physiological and Biochemical Zoology</i> , 2019, 92, 481-495.	0.6	9
54	Pretectal projections to the oculomotor cerebellum in hummingbirds (<i>Calypte anna</i>), zebra finches (<i>Taeniopygia guttata</i>), and pigeons (<i>Columba livia</i>). <i>Journal of Comparative Neurology</i> , 2019, 527, 2644-2658.	0.9	9

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55	Response properties of optic flow neurons in the accessory optic system of hummingbirds versus zebra finches and pigeons. <i>Journal of Neurophysiology</i> , 2022, 127, 130-144.	0.9	9
56	The Orientation of Visual Space from the Perspective of Hummingbirds. <i>Frontiers in Neuroscience</i> , 2018, 12, 16.	1.4	8
57	Trigeminal and Spinal Dorsal Horn (Dis)continuity and Avian Evolution. <i>Brain, Behavior and Evolution</i> , 2010, 76, 11-19.	0.9	7
58	Molecular Phylogenetics and the Diversification of Hummingbirds. <i>Current Biology</i> , 2014, 24, 1038.	1.8	7
59	Specializations in optic flow encoding in the pretectum of hummingbirds and zebra finches. <i>Current Biology</i> , 2022, 32, 2772-2779.e4.	1.8	7
60	The retinal projection to the nucleus lentiformis mesencephali in zebra finch (<i>Taeniopygia guttata</i>) and Anna's hummingbird (<i>Calypte anna</i>). <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2018, 204, 369-376.	0.7	6
61	Hovering Performance of Hummingbirds in Hyperoxic Gas Mixtures. <i>Journal of Experimental Biology</i> , 2001, 204, 2021-2027.	0.8	6
62	Individual variation and the biomechanics of maneuvering flight in hummingbirds. <i>Journal of Experimental Biology</i> , 2020, 223, .	0.8	5
63	Hydration history and attachment morphology regulate seed release in <i>Chorizanthe rigida</i> (Polygonaceae), a serotinous desert annual. <i>American Journal of Botany</i> , 2014, 101, 1079-1084.	0.8	4
64	Work loop dynamics of the pigeon (<i>Columba livia</i>) humerotriceps demonstrate potentially diverse roles for active wing morphing. <i>Journal of Experimental Biology</i> , 2019, 222, .	0.8	4
65	Hovering performance of hummingbirds in hyperoxic gas mixtures. <i>Journal of Experimental Biology</i> , 2001, 204, 2021-7.	0.8	4
66	Pitch Control Effectiveness of the Avian Elbow and Wrist via a Numerical Lifting Line Analysis. , 2019, , .		2
67	Hummingbird vision. <i>Current Biology</i> , 2020, 30, R103-R105.	1.8	2
68	Phase transformation-driven artificial muscle mimics the multifunctionality of avian wing muscle. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20201042.	1.5	2
69	Observational Learning in Hummingbirds. <i>Auk</i> , 2001, 118, 795-799.	0.7	1
70	Generation of muscle power during hovering flight in hummingbirds: A comparison of aerodynamic models with measurements of metabolic input and mechanical power output. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2008, 150, S64.	0.8	0
71	Conflicting Terminology for Wing Measurements in Ornithology and Aerodynamics. <i>Auk</i> , 2004, 121, 973-976.	0.7	0