Fritz-Olaf Lehmann

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Wing Rotation and the Aerodynamic Basis of Insect Flight. Science, 1999, 284, 1954-1960.	12.6	2,314
2	The aerodynamic effects of wing–wing interaction in flapping insect wings. Journal of Experimental Biology, 2005, 208, 3075-3092.	1.7	172
3	The fluid dynamics of flight control by kinematic phase lag variation between two robotic insect wings. Journal of Experimental Biology, 2004, 207, 4707-4726.	1.7	147
4	Phasing of dragonfly wings can improve aerodynamic efficiency by removing swirl. Journal of the Royal Society Interface, 2008, 5, 1303-1307.	3.4	121
5	The aerodynamic benefit of wing–wing interaction depends on stroke trajectory in flapping insect wings. Journal of Experimental Biology, 2007, 210, 1362-1377.	1.7	95
6	The free-flight response of <i>Drosophila</i> to motion of the visual environment. Journal of Experimental Biology, 2008, 211, 2026-2045.	1.7	84
7	Elastic deformation and energy loss of flapping fly wings. Journal of Experimental Biology, 2011, 214, 2949-2961.	1.7	82
8	Wing–wake interaction reduces power consumption in insect tandem wings. Experiments in Fluids, 2009, 46, 765-775.	2.4	63
9	The Control of Mechanical Power in Insect Flight. American Zoologist, 1998, 38, 718-728.	0.7	53
10	Turning behaviour depends on frictional damping in the fruit fly <i>Drosophila</i> . Journal of Experimental Biology, 2007, 210, 4319-4334.	1.7	47
11	Novel flight style and light wings boost flight performance of tiny beetles. Nature, 2022, 602, 96-100.	27.8	39
12	Flight muscle properties and aerodynamic performance of Drosophila expressing a flightin transgene. Journal of Experimental Biology, 2005, 208, 549-560.	1.7	31
13	Aerodynamic performance of a bristled wing of a very small insect. Experiments in Fluids, 2020, 61, 1.	2.4	31
14	The efficiency of aerodynamic force production in Drosophila. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2001, 131, 77-88.	1.8	27
15	Proprioceptive feedback determines visuomotor gain in <i>Drosophila</i> . Royal Society Open Science, 2016, 3, 150562.	2.4	27
16	Neural control and precision of flight muscle activation in Drosophila. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 1-14.	1.6	24
17	Resilin matrix distribution, variability and function in Drosophila. BMC Biology, 2020, 18, 195.	3.8	23
18	Calcium signalling indicates bilateral power balancing in the <i>Drosophila</i> flight muscle during manoeuvring flight. Journal of the Royal Society Interface, 2013, 10, 20121050.	3.4	22

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19	Local deformation and stiffness distribution in fly wings. Biology Open, 2019, 8, .	1.2	22
20	Body appendages fine-tune posture and moments in freely manoeuvring fruit flies. Journal of Experimental Biology, 2015, 218, 3295-307.	1.7	16
21	The role of experience in flight behaviour of <i>Drosophila</i> . Journal of Experimental Biology, 2009, 212, 3377-3386.	1.7	15
22	Wing Design in Flies: Properties and Aerodynamic Function. Insects, 2020, 11, 466.	2.2	15
23	Three-dimensional wing structure attenuates aerodynamic efficiency in flapping fly wings. Journal of the Royal Society Interface, 2020, 17, 20190804.	3.4	15
24	Dynamics of in vivo power output and efficiency of Nasonia asynchronous flight muscle. Journal of Biotechnology, 2006, 124, 93-107.	3.8	14
25	Impact of turbulence on flying insects in tethered and free flight: High-resolution numerical experiments. Physical Review Fluids, 2019, 4, .	2.5	14
26	Flight efficiency is a key to diverse wing morphologies in small insects. Journal of the Royal Society Interface, 2021, 18, 20210518.	3.4	12
27	Sensory processing by motoneurons: a numerical model for low-level flight control in flies. Journal of the Royal Society Interface, 2018, 15, 20180408.	3.4	8
28	Flight activity and age cause wing damage in house flies. Journal of Experimental Biology, 2022, 225, .	1.7	6
29	Vortex trapping recaptures energy in flying fruit flies. Scientific Reports, 2021, 11, 6992.	3.3	5
30	Experimental Quantification and Numerical Simulation of Unsteady Flow Conditions during Free Flight Maneuvers of Insects. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2012, , 81-99.	0.3	4
31	Efficiency and Aerodynamic Performance of Bristled Insect Wings Depending on Reynolds Number in Flapping Flight. Fluids, 2022, 7, 75.	1.7	4
32	Aerodynamic interference depends on stroke plane spacing and wing aspect ratio in damselfly model wings. International Journal of Odonatology, 2020, 23, 51-61.	0.5	2
33	Wake Structure and Vortex Development in Flight of Fruit Flies Using High-Speed Particle Image Velocimetry. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2012, , 65-79.	0.3	2
34	An experimental data-driven mass-spring model of ï¬,exible <i>Calliphora</i> wings. Bioinspiration and Biomimetics, 2021, , .	2.9	2
35	Dynamics of body kinematics of freely flying houseflies responding to air turbulence. Journal of Asia-Pacific Entomology, 2019, 22, 1082-1089.	0.9	0