# Fritz-Olaf Lehmann

List of Publications by Year
in descending order



| 35 | 3,562 | 471061 17 | 377514 34 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 37 | 37 | 37 | 1698 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Wing Rotation and the Aerodynamic Basis of Insect Flight. Science, 1999, 284, 1954-1960. | 6.0 | 2,314 |
| 2 | The aerodynamic effects of wingâ€“wing interaction in flapping insect wings. Journal of Experimental Biology, 2005, 208, 3075-3092. | 0.8 | 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. | 0.8 | 147 |
| 4 | Phasing of dragonfly wings can improve aerodynamic efficiency by removing swirl. Journal of the Royal Society Interface, 2008, 5, 1303-1307. | 1.5 | 121 |
| 5 | The aerodynamic benefit of wingâ€“wing interaction depends on stroke trajectory in flapping insect wings. Journal of Experimental Biology, 2007, 210, 1362-1377. | 0.8 | 95 |
| 6 | The free-flight response ofDrosophilato motion of the visual environment. Journal of Experimental Biology, 2008, 211, 2026-2045. | 0.8 | 84 |
| 7 | Elastic deformation and energy loss of flapping fly wings. Journal of Experimental Biology, 2011, 214, 2949-2961. | 0.8 | 82 |
| 8 | Wingâ€“wake interaction reduces power consumption in insect tandem wings. Experiments in Fluids, 2009, 46, 765-775. | 1.1 | 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 flyDrosophila. Journal of Experimental Biology, 2007, 210, 4319-4334. | 0.8 | 47 |
| 11 | Novel flight style and light wings boost flight performance of tiny beetles. Nature, 2022, 602, 96-100. | 13.7 | 39 |
| 12 | Flight muscle properties and aerodynamic performance of Drosophila expressing a flightin transgene. Journal of Experimental Biology, 2005, 208, 549-560. | 0.8 | 31 |
| 13 | Aerodynamic performance of a bristled wing of a very small insect. Experiments in Fluids, 2020, 61, 1. | 1.1 | 31 |
| 14 | The efficiency of aerodynamic force production in Drosophila. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2001, 131, 77-88. | 0.8 | 27 |
| 15 | Proprioceptive feedback determines visuomotor gain inDrosophila. Royal Society Open Science, 2016, 3, 150562. | 1.1 | 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. | 0.7 | 24 |
| 17 | Resilin matrix distribution, variability and function in Drosophila. BMC Biology, 2020, 18, 195. | 1.7 | 23 |
| 18 | Calcium signalling indicates bilateral power balancing in theDrosophilaflight muscle during manoeuvring flight. Journal of the Royal Society Interface, 2013, 10, 20121050. | 1.5 | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Local deformation and stiffness distribution in fly wings. Biology Open, 2019, 8, . | 0.6 | 22 |
| 20 | Body appendages fine-tune posture and moments in freely manoeuvring fruit flies. Journal of Experimental Biology, 2015, 218, 3295-307. | 0.8 | 16 |
| 21 | The role of experience in flight behaviour ofDrosophila. Journal of Experimental Biology, 2009, 212, 3377-3386. | 0.8 | 15 |
| 22 | Wing Design in Flies: Properties and Aerodynamic Function. Insects, 2020, 11, 466. | 1.0 | 15 |
| 23 | Three-dimensional wing structure attenuates aerodynamic efficiency in flapping fly wings. Journal of the Royal Society Interface, 2020, 17, 20190804. | 1.5 | 15 |
| 24 | Dynamics of in vivo power output and efficiency of Nasonia asynchronous flight muscle. Journal of Biotechnology, 2006, 124, 93-107. | 1.9 | 14 |
| 25 | Impact of turbulence on flying insects in tethered and free flight: High-resolution numerical experiments. Physical Review Fluids, 2019, 4, . | 1.0 | 14 |
| 26 | Flight efficiency is a key to diverse wing morphologies in small insects. Journal of the Royal Society Interface, 2021, 18, 20210518. | 1.5 | 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. | 1.5 | 8 |
| 28 | Flight activity and age cause wing damage in house flies. Journal of Experimental Biology, 2022, 225, . | 0.8 | 6 |
| 29 | Vortex trapping recaptures energy in flying fruit flies. Scientific Reports, 2021, 11, 6992. | 1.6 | 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. | 0.2 | 4 |
| 31 | Efficiency and Aerodynamic Performance of Bristled Insect Wings Depending on Reynolds Number in Flapping Flight. Fluids, 2022, 7, 75. | 0.8 | 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. | 0.2 | 2 |
| 34 | An experimental data-driven mass-spring model of ï¬exible Calliphora wings. Bioinspiration and Biomimetics, 2021, , . | 1.5 | 2 |
| 35 | Dynamics of body kinematics of freely flying houseflies responding to air turbulence. Journal of Asia-Pacific Entomology, 2019, 22, 1082-1089. | 0.4 | 0 |