

Lawrence S Ukeiley

List of Publications by Year in descending order

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136
papers

3,778
citations

201674

27
h-index

149698

56
g-index

141
all docs

141
docs citations

141
times ranked

1768
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Pressure-informed velocity estimation in a subsonic jet. <i>Physical Review Fluids</i> , 2022, 7, . | 2.5 | 3 |
| 2 | Supersonic Cavity Flow Control Using a Spanwise Array of Leading-Edge Tabs. <i>Journal of Aircraft</i> , 2022, 59, 788-798. | 2.4 | 4 |
| 3 | Two-point radiation statistics from large-scale turbulent structures within supersonic jets. <i>International Journal of Aeroacoustics</i> , 2021, 20, 254-282. | 1.3 | 2 |
| 4 | Experimental investigation of the fluctuating static pressure in a subsonic axisymmetric jet. <i>International Journal of Aeroacoustics</i> , 2021, 20, 196-220. | 1.3 | 2 |
| 5 | Unsteady control of supersonic turbulent cavity flow based on resolvent analysis. <i>Journal of Fluid Mechanics</i> , 2021, 925, . | 3.4 | 22 |
| 6 | Correction: Modal Analysis of Fluid Flows: An Overview. <i>AIAA Journal</i> , 2020, 58, AU9-AU9. | 2.6 | 9 |
| 7 | Resolvent Analysis of Compressible Laminar and Turbulent Cavity Flows. <i>AIAA Journal</i> , 2020, 58, 1046-1055. | 2.6 | 18 |
| 8 | Spectral analysis modal methods (SAMMs) using non-time-resolved PIV. <i>Experiments in Fluids</i> , 2020, 61, 1. | 2.4 | 13 |
| 9 | PIV Measurements and Reduced-Order Characterization of a Mach 0.3 Axisymmetric Jet. , 2020, , . | | 1 |
| 10 | Modal Analysis of Fluid Flow: Introduction to the Virtual Collection. <i>AIAA Journal</i> , 2020, 58, 991-993. | 2.6 | 8 |
| 11 | Extraction of DMD modes from Pulse-Burst PIV Data of Flow over an Open Cavity. , 2020, , . | | 2 |
| 12 | Low-order estimation of the velocity, hydrodynamic pressure, and acoustic radiation for a three-dimensional turbulent wall jet. <i>Experimental Thermal and Fluid Science</i> , 2020, 116, 110101. | 2.7 | 5 |
| 13 | Proper Orthogonal Decomposition of High-Speed Particle Image Velocimetry in an Open Cavity. <i>AIAA Journal</i> , 2020, 58, 2975-2990. | 2.6 | 11 |
| 14 | Suppression of Cavity Flow Oscillations via Three-Dimensional Steady Blowing. <i>AIAA Journal</i> , 2019, 57, 90-105. | 2.6 | 24 |
| 15 | Effects of Sidewalls and Leading-Edge Blowing on Flows over Long Rectangular Cavities. <i>AIAA Journal</i> , 2019, 57, 106-119. | 2.6 | 29 |
| 16 | Development of a Two-Dimensional Wall Shear Stress Sensor for Wind Tunnel Applications. , 2019, , . | | 1 |
| 17 | Microfabricated Electrodynamic Synthetic Jet Actuators. <i>Journal of Microelectromechanical Systems</i> , 2018, 27, 95-105. | 2.5 | 5 |
| 18 | Resolvent Analysis of Compressible Flow over a Long Rectangular Cavity. , 2018, , . | | 5 |

| # | ARTICLE | IF | CITATIONS |
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| 19 | Low-Order Velocity Estimation and Acoustic Noise Generation by a Turbulent Wall Jet. AIAA Journal, 2018, 56, 4331-4347. | 2.6 | 5 |
| 20 | Application of POD to Pulse Burst PIV Data of Flow Over an Open Cavity. , 2018, , . | | 2 |
| 21 | Characteristics of turbulent boundary layer large scale motions using direct fluctuating wall shear stress measurements. Physical Review Fluids, 2018, 3, . | 2.5 | 13 |
| 22 | Loads and Acoustics Prediction on Deployed Weapons Bay Doors. Journal of Vibration and Acoustics, Transactions of the ASME, 2017, 139, . | 1.6 | 9 |
| 23 | Biglobal instabilities of compressible open-cavity flows. Journal of Fluid Mechanics, 2017, 826, 270-301. | 3.4 | 42 |
| 24 | Modal Analysis of Fluid Flows: An Overview. AIAA Journal, 2017, 55, 4013-4041. | 2.6 | 1,020 |
| 25 | On the acoustics of a circulation control airfoil. Journal of Sound and Vibration, 2017, 388, 85-104. | 3.9 | 6 |
| 26 | Spanwise effects on instabilities of compressible flow over a long rectangular cavity. Theoretical and Computational Fluid Dynamics, 2017, 31, 555-565. | 2.2 | 14 |
| 27 | Acoustic Generation by Pressure-Velocity Interactions in a Three-Dimensional, Turbulent Wall Jet. , 2017, , . | | 1 |
| 28 | An aerodynamic characterization facility for micro air vehicle research. International Journal of Micro Air Vehicles, 2016, 8, 79-91. | 1.3 | 1 |
| 29 | Synchronized Velocity and Pressure Measurements of Supersonic Flow over a Finite Span Cavity with Leading Edge Slot Blowing. , 2016, , . | | 4 |
| 30 | The Influence of Velocity Field Estimation on the Prediction of Far-Field Acoustics. , 2016, , . | | 2 |
| 31 | Width and sidewall effects on high speed cavity flows. , 2016, , . | | 11 |
| 32 | Fluid-structural dynamic characterization of an electroactive membrane wing. Journal of Intelligent Material Systems and Structures, 2016, 27, 1510-1522. | 2.5 | 3 |
| 33 | Loads and Acoustics Prediction on Deployed Weapons Bay Doors. , 2015, , . | | 4 |
| 34 | Suppression of Cavity Oscillations via Three-Dimensional Steady Blowing. , 2015, , . | | 10 |
| 35 | Hybrid RANS/LES Acoustics Prediction in Supersonic Weapons Cavity. , 2015, , . | | 4 |
| 36 | Control of Three-Dimensional Cavity Flow Using Leading-Edge Slot Blowing. , 2015, , . | | 16 |

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| 37 | Wake Characteristics of a 2D Spanwise Tensioned Membrane with Aerodynamic Loading. , 2014, , . | | 1 |
| 38 | Numerical Simulations of Subsonic and Transonic Open-Cavity Flows. , 2014, , . | | 11 |
| 39 | Controlling pretension of silicone membranes on micro air vehicle wings. Journal of Strain Analysis for Engineering Design, 2014, 49, 161-170. | 1.8 | 8 |
| 40 | Nondimensional frequency scaling of aerodynamically-tensioned membranes. Journal of Fluids and Structures, 2014, 48, 14-26. | 3.4 | 6 |
| 41 | Force estimation from incompressible flow field data using a momentum balance approach. Experiments in Fluids, 2014, 55, 1. | 2.4 | 4 |
| 42 | Passively controlled supersonic cavity flow using a spanwise cylinder. Experiments in Fluids, 2014, 55, 1. | 2.4 | 14 |
| 43 | A Method for Estimating Surface Pressure Forces and Far-Field Acoustics. , 2014, , . | | 0 |
| 44 | Passive flow control by membrane wings for aerodynamic benefit. Experiments in Fluids, 2013, 54, 1. | 2.4 | 35 |
| 45 | Integration of non-time-resolved PIV and time-resolved velocity point sensors for dynamic estimation of velocity fields. Experiments in Fluids, 2013, 54, 1. | 2.4 | 66 |
| 46 | Mean Loads from Wind-Tunnel Turbulence on Low-Aspect-Ratio Flat Plates. Journal of Aircraft, 2013, 50, 863-870. | 2.4 | 8 |
| 47 | Passively Compliant Membranes in Low Aspect Ratio Wings. , 2013, , . | | 3 |
| 48 | Characterization of Noise Generation on a Canonical Nose Landing Gear Sub-system. , 2013, , . | | 1 |
| 49 | Force and Deformation Measurement on Low Aspect Ratio Membrane Airfoils. , 2013, , . | | 7 |
| 50 | Evaluating the Flow Fields Around Low Aspect Ratio Flat Plates in Wind Tunnel Turbulence. , 2013, , . | | 0 |
| 51 | Controlling Pre-tension of Silicone Membranes on Micro Air Vehicle Flexible Wings. , 2012, , . | | 7 |
| 52 | Flow Around Flapping Flexible Flat Plate Wings. , 2012, , . | | 4 |
| 53 | Leading Edge Vortex Development on a Pitching Flat Plate at Low Reynolds Number. , 2012, , . | | 0 |
| 54 | Effect of Aspect Ratio on Flat-Plate Membrane Airfoils. , 2012, , . | | 8 |

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| 55 | Numerical Investigation of a Cylinder Immersed in a Supersonic Boundary Layer. <i>AIAA Journal</i> , 2012, 50, 257-270. | 2.6 | 7 |
| 56 | Cell Geometry and Material Property Effects on Membrane and Flow Response. <i>AIAA Journal</i> , 2012, 50, 755-761. | 2.6 | 13 |
| 57 | Flow and Structure Measurements of a Passively Compliant Wing. , 2012, , . | | 4 |
| 58 | Integration of non-time-resolved PIV and time-resolved velocity point sensors for dynamic estimation of time-resolved velocity fields. , 2012, , . | | 4 |
| 59 | The Study of Fluid Structure Interactions of an Electroactive Membrane Wing. , 2012, , . | | 0 |
| 60 | Leading edge slot blowing on an open cavity in supersonic flow. <i>Experiments in Fluids</i> , 2012, 53, 187-199. | 2.4 | 39 |
| 61 | Evaluating the Dynamic Loads from Wind Tunnel Turbulence on a Low Aspect Ratio Flat Plate. , 2012, , . | | 1 |
| 62 | Detached Eddy Simulation of a Supersonic Cavity Flow With and Without Passive Flow Control. , 2011, , . | | 17 |
| 63 | Structural dynamics and aerodynamics measurements of biologically inspired flexible flapping wings. <i>Bioinspiration and Biomimetics</i> , 2011, 6, 016009. | 2.9 | 46 |
| 64 | Effects of Membrane Vibration on the Flow Field Surrounding Flat-Plate Membrane Airfoils. , 2011, , . | | 5 |
| 65 | Wind Tunnel Generated Turbulence. , 2011, , . | | 12 |
| 66 | Progress on Active Control of Open Cavities. , 2011, , . | | 3 |
| 67 | Tip Vortex Development on a Pitching-Plunging Low Aspect Ratio Flat Plate. , 2011, , . | | 0 |
| 68 | Flow Field Effects of Control on Supersonic Open Cavities. , 2011, , . | | 5 |
| 69 | Aerodynamic Forces on Flexible Flapping Wings. , 2011, , . | | 1 |
| 70 | Experimental Study of Adaptive Control of High-Speed Flow-Induced Cavity Oscillations. <i>Journal of Fluid Science and Technology</i> , 2011, 6, 701-716. | 0.6 | 4 |
| 71 | Fluid Dynamic Forces on Plunging Spanwise-Flexible Elliptical Flat Plates at Low Reynolds Numbers. , 2011, , . | | 2 |
| 72 | Nonlinear estimation of fluid flow velocity fields. , 2011, , . | | 12 |

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| 73 | Contributions of turbulence to subsonic cavity flow wall pressures. <i>Physics of Fluids</i> , 2011, 23, 015104. | 4.0 | 7 |
| 74 | An Integrated Experimental and Computational Approach to Analyze Flexible Flapping Wings in Hover. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011, , 1441-1451. | 0.5 | 2 |
| 75 | Application of multivariate outlier detection to fluid velocity measurements. <i>Experiments in Fluids</i> , 2010, 49, 305-317. | 2.4 | 32 |
| 76 | Bicoherence analysis of model-scale jet noise. <i>Journal of the Acoustical Society of America</i> , 2010, 128, EL211-EL216. | 1.1 | 24 |
| 77 | Flow Measurements in the Wake of Flexible Flapping Wings. , 2010, , . | | 2 |
| 78 | Suppression of Fluctuating Surface Pressures in a Supersonic Cavity Flow. , 2010, , . | | 18 |
| 79 | A Computational and Experimental Studies of Flexible Wing Aerodynamics. , 2010, , . | | 23 |
| 80 | Unsteady Aerodynamics on a Low Aspect Ratio Flat Plate. , 2010, , . | | 2 |
| 81 | Properties of subsonic open cavity flow fields. <i>Physics of Fluids</i> , 2009, 21, , . | 4.0 | 68 |
| 82 | A study of a 3-D double backward-facing step. <i>Experiments in Fluids</i> , 2009, 47, 427-438. | 2.4 | 48 |
| 83 | Suppression of Cavity Loads Using Leading-Edge Blowing. <i>AIAA Journal</i> , 2009, 47, 1132-1144. | 2.6 | 48 |
| 84 | A Multidisciplinary Experimental Study of Flapping Wing Aeroelasticity in Thrust Production. , 2009, , . | | 20 |
| 85 | A Detached Eddy Simulation of a Cylinder Immersed in a Supersonic Boundary Layer. , 2009, , . | | 1 |
| 86 | Three-Dimensional Averaged Flow Around Flexible Flapping Wings. , 2009, , . | | 6 |
| 87 | Validation of a Low Reynolds Number Aerodynamic Characterization Facility. , 2009, , . | | 14 |
| 88 | The Investigation of a Cylinder Immersed in a Supersonic Boundary Layer. , 2009, , . | | 1 |
| 89 | Three-Dimensional Averaged Flow Around Rigid Flapping Wings. , 2008, , . | | 4 |
| 90 | Flow Characteristics of a Three-Dimensional Fixed Micro Air Vehicle Wing. , 2008, , . | | 2 |

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| 91 | Control of Pressure Loads in Geometrically Complex Cavities. <i>Journal of Aircraft</i> , 2008, 45, 1014-1024. | 2.4 | 50 |
| 92 | Low-dimensional characteristics of a transonic jet. Part 1. Proper orthogonal decomposition. <i>Journal of Fluid Mechanics</i> , 2008, 612, 107-141. | 3.4 | 86 |
| 93 | Low-dimensional characteristics of a transonic jet. Part 2. Estimate and far-field prediction. <i>Journal of Fluid Mechanics</i> , 2008, 615, 53-92. | 3.4 | 92 |
| 94 | Dynamic Surface Pressure Based Estimation for Flow Control. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2008, , 183-189. | 0.2 | 10 |
| 95 | Complementary Numerical and Experimental Efforts for the Study of Cavity Flow and its Control (Invited). , 2008, , . | | 0 |
| 96 | Spatial Correlations in a Transonic Jet. <i>AIAA Journal</i> , 2007, 45, 1357-1369. | 2.6 | 33 |
| 97 | Velocity and Pressure Measurements of a Mach 0.85 Axisymmetric Jet. , 2007, , 963. | | 0 |
| 98 | Control of Pressure Loads in Complex Cavity Configurations. , 2007, , . | | 11 |
| 99 | Flow Control for Enhanced Store Separation. , 2007, , . | | 16 |
| 100 | Calculating Surface Pressure Fluctuations from PIV Data Using Poisson's Equation. , 2007, , . | | 3 |
| 101 | Identification of Nonlinear and Near-Field Effects in Jet Noise Using Nonlinearity Indicators. , 2007, , . | | 11 |
| 102 | Three Dimensional Stochastic Estimation Applied to Cavity Flow Fields. , 2007, , . | | 2 |
| 103 | Modified quadratic stochastic estimation of resonating subsonic cavity flow. <i>Journal of Turbulence</i> , 2007, 8, N53. | 1.4 | 45 |
| 104 | Flow Field Dynamics in Open Cavity Flows. , 2006, , . | | 22 |
| 105 | An application of Gappy POD. <i>Experiments in Fluids</i> , 2006, 42, 79-91. | 2.4 | 70 |
| 106 | Spatial Velocity Correlations and Near Field Pressure Measurements From a Heated Transonic Axisymmetric Jet. , 2006, , 487. | | 0 |
| 107 | Velocity and surface pressure measurements in an open cavity. <i>Experiments in Fluids</i> , 2005, 38, 656-671. | 2.4 | 101 |
| 108 | Wall Pressure Modes in Subsonic Cavity Flows. , 2005, , . | | 8 |

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| 109 | The Effects of Microjet Injection on an F404 Jet Engine. , 2005, , . | | 31 |
| 110 | Aero-Performance Efficient Noise Reduction for the F404-400 Engine. , 2005, , . | | 48 |
| 111 | The Evolution of the Most Energetic Modes in High Subsonic Mach Number Turbulent Jet. , 2005, , . | | 20 |
| 112 | Estimation of Time Dependent Flow Properties in an Open Cavity. , 2005, , . | | 5 |
| 113 | Suppression of Pressure Loads in Cavity Flows. AIAA Journal, 2004, 42, 70-79. | 2.6 | 106 |
| 114 | Designing an Anechoic Chamber for the Experimental Study of High Speed Heated Jets. , 2004, , . | | 28 |
| 115 | Spatial Correlations in a Transonic Jet. , 2004, , . | | 4 |
| 116 | Noise Reduction Technology for F/A-18 E/F Aircraft. , 2004, , . | | 31 |
| 117 | Low-Dimensional Estimation of Cavity Flow Dynamics. , 2004, , . | | 9 |
| 118 | On the near Field Pressure of a Transonic Axisymmetric Jet. International Journal of Aeroacoustics, 2004, 3, 43-65. | 1.3 | 62 |
| 119 | Estimation of the Flowfield from Surface Pressure Measurements in an Open Cavity. AIAA Journal, 2003, 41, 969-972. | 2.6 | 70 |
| 120 | Suppression of Pressure Loads in Resonating Cavities Through Blowing. , 2003, , . | | 9 |
| 121 | Estimating the Shear Layer Velocity Field Above an Open Cavity from Surface Pressure Measurements. , 2002, , . | | 16 |
| 122 | Examination of large-scale structures in a turbulent plane mixing layer. Part 2. Dynamical systems model. Journal of Fluid Mechanics, 2001, 441, 67-108. | 3.4 | 82 |
| 123 | A new anechoic chamber design for testing high-temperature jet flows. , 2001, , . | | 20 |
| 124 | Low-dimensional description of variable density flows. , 2001, , . | | 8 |
| 125 | Understanding the Role of Self-Efficacy in Engineering Education. Journal of Engineering Education, 2001, 90, 247-251. | 3.0 | 60 |
| 126 | A low-dimensional description of the compressible axisymmetric shear layer. , 2001, , . | | 8 |

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| 127 | Low-dimensional description of resonating cavity flow. , 2000, , . | | 13 |
| 128 | Examination of quadrupole sources in a transonic jet. , 2000, , . | | 2 |
| 129 | Examination of large-scale structures in a turbulent plane mixing layer. Part 1. Proper orthogonal decomposition. Journal of Fluid Mechanics, 1999, 391, 91-122. | 3.4 | 155 |
| 130 | Collaborative testing of eddy structure identification methods in free turbulent shear flows. Experiments in Fluids, 1998, 25, 197-225. | 2.4 | 123 |
| 131 | Investigation of turbulent flows via pseudo flow visualization part II: Lobed mixer. Experimental Thermal and Fluid Science, 1996, 13, 167-177. | 2.7 | 11 |
| 132 | Stochastic estimation and proper orthogonal decomposition: Complementary techniques for identifying structure. Experiments in Fluids, 1994, 17, 307-314. | 2.4 | 224 |
| 133 | Investigation of turbulent flows via pseudo flow visualization part I: Axisymmetric jet mixing layer. Experimental Thermal and Fluid Science, 1994, 9, 391-404. | 2.7 | 5 |
| 134 | Downstream evolution of proper orthogonal decomposition eigenfunctions in a lobed mixer. AIAA Journal, 1993, 31, 1392-1397. | 2.6 | 30 |
| 135 | Multifractal analysis of a lobed mixer flowfield utilizing the proper orthogonal decomposition. AIAA Journal, 1992, 30, 1260-1267. | 2.6 | 23 |
| 136 | Development of low dimensional models for control of compressible flows. , 0, , . | | 4 |