

Yingzheng Liu

List of Publications by Year in descending order

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Version: 2024-02-01

123
papers

2,499
citations

201575

27
h-index

289141

40
g-index

153
all docs

153
docs citations

153
times ranked

1065
citing authors

#	ARTICLE	IF	CITATIONS
1	The identification of coherent structures using proper orthogonal decomposition and dynamic mode decomposition. <i>Journal of Fluids and Structures</i> , 2014, 49, 53-72.	1.5	143
2	Super-resolution reconstruction of turbulent velocity fields using a generative adversarial network-based artificial intelligence framework. <i>Physics of Fluids</i> , 2019, 31, .	1.6	115
3	Time-resolved turbulent velocity field reconstruction using a long short-term memory (LSTM)-based artificial intelligence framework. <i>Physics of Fluids</i> , 2019, 31, .	1.6	73
4	Fast PSP measurements of wall-pressure fluctuation in low-speed flows: improvements using proper orthogonal decomposition. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	67
5	Fast pressure-sensitive paint for understanding complex flows: from regular to harsh environments. <i>Experiments in Fluids</i> , 2020, 61, 1.	1.1	67
6	Improvements of film cooling effectiveness by using Barchan dune shaped ramps. <i>International Journal of Heat and Mass Transfer</i> , 2016, 103, 443-456.	2.5	60
7	A Review on Fluid-Induced Flag Vibrations. <i>Applied Mechanics Reviews</i> , 2019, 71, .	4.5	56
8	Flapping dynamics of a low aspect-ratio energy-harvesting membrane immersed in a square cylinder wake. <i>Experimental Thermal and Fluid Science</i> , 2013, 46, 151-161.	1.5	52
9	A novel sprayable fast-responding pressure-sensitive paint based on mesoporous silicone dioxide particles. <i>Sensors and Actuators A: Physical</i> , 2018, 279, 390-398.	2.0	50
10	Heat transfer of a sweeping jet impinging at narrow spacings. <i>Experimental Thermal and Fluid Science</i> , 2019, 103, 89-98.	1.5	50
11	Wake dynamics behind a seal-vibrissa-shaped cylinder: a comparative study by time-resolved particle velocimetry measurements. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	46
12	A novel sand-dune-inspired design for improved film cooling performance. <i>International Journal of Heat and Mass Transfer</i> , 2017, 110, 908-920.	2.5	43
13	Unsteady behavior of a sweeping impinging jet: Time-resolved particle image velocimetry measurements. <i>Experimental Thermal and Fluid Science</i> , 2018, 96, 111-127.	1.5	42
14	Unsteady analysis of adiabatic film cooling effectiveness behind circular, shaped, and sand-dune-inspired film cooling holes: Measurement using fast-response pressure-sensitive paint. <i>International Journal of Heat and Mass Transfer</i> , 2018, 125, 1003-1016.	2.5	42
15	Vortex dynamics behind a self-oscillating inverted flag placed in a channel flow: Time-resolved particle image velocimetry measurements. <i>Physics of Fluids</i> , 2017, 29, .	1.6	41
16	Single-shot lifetime-based PSP and TSP measurements on turbocharger compressor blades. <i>Experiments in Fluids</i> , 2017, 58, 1.	1.1	39
17	A data assimilation model for turbulent flows using continuous adjoint formulation. <i>Physics of Fluids</i> , 2018, 30, .	1.6	39
18	Simultaneous PSP and TSP measurements of transient flow in a long-duration hypersonic tunnel. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	38

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19	Vortex dynamics and heat transfer behind self-oscillating inverted flags of various lengths in channel flow. <i>Physics of Fluids</i> , 2018, 30, .	1.6	36
20	Unsteady analysis of adiabatic film cooling effectiveness for discrete hole with oscillating mainstream flow. <i>Physics of Fluids</i> , 2018, 30, 127103.	1.6	36
21	Deep neural network-based strategy for optimal sensor placement in data assimilation of turbulent flow. <i>Physics of Fluids</i> , 2021, 33, .	1.6	32
22	Structure analysis of adiabatic film cooling effectiveness in the near field of a single inclined jet: Measurement using fast-response pressure-sensitive paint. <i>International Journal of Heat and Mass Transfer</i> , 2017, 110, 629-642.	2.5	30
23	Influence of mainstream flow oscillations on spatio-temporal variation of adiabatic film cooling effectiveness. <i>International Journal of Heat and Mass Transfer</i> , 2019, 129, 569-579.	2.5	30
24	A dynamic delayed detached-eddy simulation model for turbulent flows. <i>Computers and Fluids</i> , 2017, 146, 174-189.	1.3	29
25	Interaction of dual sweeping impinging jets at different Reynolds numbers. <i>Physics of Fluids</i> , 2018, 30, .	1.6	29
26	Flow dynamics of a fluidic oscillator with internal geometry variations. <i>Physics of Fluids</i> , 2020, 32, .	1.6	29
27	Recovering turbulent flow field from local quantity measurement: turbulence modeling using ensemble-Kalman-filter-based data assimilation. <i>Journal of Visualization</i> , 2018, 21, 1043-1063.	1.1	28
28	Missing data recovery using data fusion of incomplete complementary data sets: A particle image velocimetry application. <i>Physics of Fluids</i> , 2019, 31, .	1.6	28
29	Instantaneous pressure determination from unsteady velocity fields using adjoint-based sequential data assimilation. <i>Physics of Fluids</i> , 2020, 32, .	1.6	28
30	Experimental study on hypersonic shock-body interaction between bodies in close proximity using translucent fast pressure- and temperature-sensitive paints. <i>Experiments in Fluids</i> , 2020, 61, 1.	1.1	28
31	Heat transfer enhancement of turbulent channel flow using tandem self-oscillating inverted flags. <i>Physics of Fluids</i> , 2018, 30, 075108.	1.6	26
32	Dynamic mode decomposition of separated flow over a finite blunt plate: time-resolved particle image velocimetry measurements. <i>Experiments in Fluids</i> , 2015, 56, 1.	1.1	25
33	Rapid tomographic reconstruction based on machine learning for time-resolved combustion diagnostics. <i>Review of Scientific Instruments</i> , 2018, 89, 043101.	0.6	25
34	Flapping dynamics of a piezoelectric membrane behind a circular cylinder. <i>Journal of Fluids and Structures</i> , 2015, 55, 347-363.	1.5	24
35	Measurement of flow structures and heat transfer behind a wall-proximity square rib using TSP, PIV and split-fiber film. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	24
36	Proper orthogonal decomposition-based spatial refinement of TR-PIV realizations using high-resolution non-TR-PIV measurements. <i>Experiments in Fluids</i> , 2017, 58, 1.	1.1	24

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37	Computational fluid dynamics of steam flow in a turbine control valve with a bell-shaped spindle. <i>Applied Thermal Engineering</i> , 2018, 129, 1333-1347.	3.0	24
38	Data mining of a clean signal from highly noisy data based on compressed data fusion: A fast-responding pressure-sensitive paint application. <i>Physics of Fluids</i> , 2018, 30, .	1.6	24
39	Lagrangian analysis of sweeping jets measured by time-resolved particle image velocimetry. <i>Experimental Thermal and Fluid Science</i> , 2018, 97, 192-204.	1.5	23
40	Data assimilation and resolvent analysis of turbulent flow behind a wall-proximity rib. <i>Physics of Fluids</i> , 2019, 31, .	1.6	23
41	Influence of incident vortex street on separated flow around a finite blunt plate: PIV measurement and POD analysis. <i>Journal of Fluids and Structures</i> , 2015, 55, 463-483.	1.5	22
42	Separated flow over blunt plates with different chord-to-thickness ratios: Unsteady behaviors and wall-pressure fluctuations. <i>Experimental Thermal and Fluid Science</i> , 2017, 84, 199-216.	1.5	22
43	Assessment of film coolingâ€™s surface quantities using pressure- and temperature-sensitive paint: Comparisons between shaped and sand-dune inspired holes. <i>Experimental Thermal and Fluid Science</i> , 2019, 101, 16-26.	1.5	22
44	Jet sweeping angle control by fluidic oscillators with master-slave designs. <i>Chinese Journal of Aeronautics</i> , 2021, 34, 145-162.	2.8	22
45	Evaluation of the in-depth temperature sensing performance of Eu- and Dy-doped YSZ in air plasma sprayed thermal barrier coatings. <i>Surface and Coatings Technology</i> , 2017, 316, 210-218.	2.2	21
46	Large-eddy simulation of circular jet mixing: Lip- and inner-ribbed nozzles. <i>Computers and Fluids</i> , 2018, 168, 245-264.	1.3	21
47	Flapping dynamics of vertically clamped three-dimensional flexible flags in a Poiseuille flow. <i>Physics of Fluids</i> , 2020, 32, .	1.6	20
48	Unsteady analysis of turbulent flow and heat transfer behind a wall-proximity square rib using dynamic delayed detached-eddy simulation. <i>Physics of Fluids</i> , 2021, 33, .	1.6	20
49	Flow prediction using dynamic mode decomposition with time-delay embedding based on local measurement. <i>Physics of Fluids</i> , 2021, 33, .	1.6	20
50	Influence of vortex-excited acoustic resonance on flow dynamics in channel with coaxial side-branches. <i>Physics of Fluids</i> , 2018, 30, .	1.6	19
51	Effects of Flow Compressibility and Density Ratio on Film Cooling Performance. <i>Journal of Propulsion and Power</i> , 2017, 33, 964-974.	1.3	18
52	Heat transfer enhancement of turbulent channel flow using dual self-oscillating inverted flags: Staggered and side-by-side configurations. <i>International Journal of Heat and Mass Transfer</i> , 2019, 136, 851-863.	2.5	18
53	Turbine vane endwall film cooling with barchan-dune shaped ramp in a single-passage transonic wind tunnel. <i>International Journal of Heat and Mass Transfer</i> , 2020, 162, 120350.	2.5	18
54	Heat transfer enhancement in a poiseuille channel flow by using multiple wall-mounted flexible flags. <i>International Journal of Heat and Mass Transfer</i> , 2020, 163, 120447.	2.5	18

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55	Jet impingement using an adjustable spreading-angle sweeping jet. <i>Aerospace Science and Technology</i> , 2020, 105, 105956.	2.5	18
56	Flow enhancement of tomographic particle image velocimetry measurements using sequential data assimilation. <i>Physics of Fluids</i> , 2022, 34, .	1.6	18
57	Intensified flow dynamics by second-order acoustic standing-wave mode: Vortex-excited acoustic resonances in channel branches. <i>Physics of Fluids</i> , 2019, 31, .	1.6	17
58	Effect of oxygen partial pressure on the phosphorescence of different lanthanide ion (Ln ³⁺)-doped yttria-stabilised zirconia. <i>Sensors and Actuators B: Chemical</i> , 2020, 308, 127666.	4.0	17
59	Data assimilation for turbulent mean flow and scalar fields with anisotropic formulation. <i>Experiments in Fluids</i> , 2021, 62, 1.	1.1	16
60	A data assimilation model for wall pressure-driven mean flow reconstruction. <i>Physics of Fluids</i> , 2022, 34, .	1.6	16
61	Energy harvesting with two parallel pinned piezoelectric membranes in fluid flow. <i>Journal of Fluids and Structures</i> , 2016, 65, 381-397.	1.5	15
62	End-wall heat transfer of a rectangular bluff body at different heights: Temperature-sensitive paint measurement and computational fluid dynamics. <i>Applied Thermal Engineering</i> , 2017, 122, 697-705.	3.0	14
63	Time-resolved reconstruction of turbulent flows using linear stochastic estimation and sequential data assimilation. <i>Physics of Fluids</i> , 2020, 32, 075106.	1.6	14
64	Proper orthogonal decomposition of time-resolved LIF visualization: scalar mixing in a round jet. <i>Journal of Visualization</i> , 2017, 20, 789-815.	1.1	13
65	Jet impingement heat transfer of a lobed nozzle: Measurements using temperature-sensitive paint and particle image velocimetry. <i>International Journal of Heat and Fluid Flow</i> , 2018, 71, 111-126.	1.1	13
66	Transient thermal behaviors of a scaled turbine valve: Conjugate heat transfer simulation and experimental measurement. <i>International Journal of Heat and Mass Transfer</i> , 2019, 141, 116-128.	2.5	13
67	Vortex dynamics during acoustic-mode transition in channel branches. <i>Physics of Fluids</i> , 2019, 31, 085109.	1.6	13
68	Influence of diametral acoustic mode on cavity flow dynamics: Zonal large eddy simulation and proper orthogonal decomposition. <i>Physics of Fluids</i> , 2020, 32, 075103.	1.6	13
69	Phase-locking particle image velocimetry measurement of unsteady flow behaviors: Online dynamic mode decomposition using field-programmable gate array. <i>Physics of Fluids</i> , 2019, 31, .	1.6	12
70	Quantitative stress measurement of elastic deformation using mechanoluminescent sensor: An intensity ratio model. <i>Review of Scientific Instruments</i> , 2018, 89, 045006.	0.6	11
71	Vortex-excited acoustic resonance in channel with coaxial side-branches: Vortex dynamics and aeroacoustic energy transfer. <i>Physics of Fluids</i> , 2018, 30, 125104.	1.6	11
72	Spinning behavior of flow-acoustic resonant fields inside a cavity: Vortex-shedding modes and diametral acoustic modes. <i>Physics of Fluids</i> , 2020, 32, 085109.	1.6	11

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73	Flow Structures and Unsteady Behaviors of Film Cooling from Discrete Holes Fed by Internal Crossflow. <i>Journal of Turbomachinery</i> , 2020, 142, .	0.9	11
74	Experimental Study of Oscillating Freestream Effect on the Spatiotemporal Distributions of Leading-Edge Film Cooling. <i>Journal of Turbomachinery</i> , 2021, 143, .	0.9	11
75	Flow and surface pressure field measurements on a circular cylinder with impingement of turbulent round jet. <i>Experimental Thermal and Fluid Science</i> , 2019, 105, 67-76.	1.5	10
76	Pressure-sensitive paint with imprinted pattern for full-field endoscopic measurement using a color camera. <i>Sensors and Actuators A: Physical</i> , 2019, 290, 28-35.	2.0	10
77	Fluid-structure interaction of a flexible membrane under movement-induced excitation (MIE), extraneously induced excitation (EIE), and coupled MIE-EIE. <i>Physics of Fluids</i> , 2021, 33, .	1.6	10
78	Acoustics-driven vortex dynamics in channel branches with round intersections: Flow mode transition and three-dimensionality. <i>Physics of Fluids</i> , 2020, 32, .	1.6	9
79	Transonic vane film cooling with crescent-shaped craters using an endoscopic pressure-sensitive paint technique. <i>Applied Thermal Engineering</i> , 2022, 205, 118081.	3.0	9
80	Hydrodynamic benefits of pectoral fins in a self-propelled flexible plate. <i>Physics of Fluids</i> , 2022, 34, .	1.6	9
81	Drag reduction by a rotationally oscillating cylinder with a flexible filament. <i>Physics of Fluids</i> , 2022, 34, .	1.6	9
82	Phosphor-Doped Thermal Barrier Coatings Deposited by Air Plasma Spray for In-Depth Temperature Sensing. <i>Sensors</i> , 2016, 16, 1490.	2.1	8
83	Numerical Investigation of Creep-Fatigue Behavior in a Steam Turbine Inlet Valve Under Cyclic Thermomechanical Loading. <i>Journal of Engineering for Gas Turbines and Power</i> , 2017, 139, .	0.5	8
84	Integration of pressure-sensitive paint with persistent phosphor: A light-charged pressure-sensing system. <i>Review of Scientific Instruments</i> , 2018, 89, 085003.	0.6	8
85	Proper orthogonal decomposition of turbulent flow around a finite blunt plate. <i>Journal of Visualization</i> , 2018, 21, 763-777.	1.1	8
86	Study on three-dimensional flow structures of a sweeping jet using time-resolved stereo particle image velocimetry. <i>Experimental Thermal and Fluid Science</i> , 2020, 110, 109945.	1.5	8
87	The Formation and Evolution of Turbulent Swirling Vortex Rings Generated by Axial Swirlers. <i>Flow, Turbulence and Combustion</i> , 2020, 104, 795-816.	1.4	8
88	Dynamics of compact vortex rings generated by axial swirlers at early stage. <i>Physics of Fluids</i> , 2020, 32, 045104.	1.6	8
89	Conditional generative adversarial network driven approach for direct prediction of thermal stress based on two-phase material SEM images. <i>Ceramics International</i> , 2021, 47, 34115-34126.	2.3	8
90	Spatiotemporal distributions of sweeping jet film cooling with a compact geometry. <i>Physics of Fluids</i> , 2022, 34, .	1.6	8

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91	Drag reduction by a flexible afterbody. <i>Physics of Fluids</i> , 2021, 33, .	1.6	8
92	Study of internal time-resolved flow dynamics of a subsonic fluidic oscillator using fast pressure sensitive paint. <i>Experiments in Fluids</i> , 2022, 63, 1.	1.1	8
93	A novel laminated OLEDâ€PSP system for measurement on moving surfaces. <i>Journal of Visualization</i> , 2018, 21, 215-223.	1.1	7
94	Thermal stability improvement of sprayable fast-responding pressure-sensitive paint for measurement above 100â€°C. <i>Chinese Journal of Aeronautics</i> , 2021, 34, 320-326.	2.8	7
95	Simultaneous 3D surface profile and pressure measurement using phase-shift profilometry and pressure-sensitive paint. <i>Review of Scientific Instruments</i> , 2021, 92, 035107.	0.6	7
96	Fast PSP measurement of three-dimensional low-frequency unsteadiness in sidewall-confined shock wave/turbulent boundary layer interaction. <i>Experimental Thermal and Fluid Science</i> , 2022, 134, 110599.	1.5	7
97	Unsteady behavior of wall-detached flow inside a steam turbine control valve. <i>Physics of Fluids</i> , 2019, 31, .	1.6	6
98	Time-resolved particle image velocimetry measurement of vortex dynamics behind tandem self-oscillating inverted flags in a channel flow. <i>Experimental Thermal and Fluid Science</i> , 2020, 112, 109982.	1.5	6
99	Unsteady behaviors of separated flow over a finite blunt plate at different inclination angles. <i>Physics of Fluids</i> , 2020, 32, 035111.	1.6	6
100	Flow structures of a precessing jet in an axisymmetric chamber. <i>Journal of Visualization</i> , 2021, 24, 501-515.	1.1	6
101	Dynamics of the jet flow issued from a lobed Nozzle: Tomographic particle image velocimetry measurements. <i>International Journal of Heat and Fluid Flow</i> , 2021, 89, 108795.	1.1	6
102	Concentration effect on oxygen quenching behavior of $\text{Eu}_{x\text{Y}0.08\text{Zr}0.92\text{O}_{1.96}}$ and $\text{Dy}_{x\text{Y}0.08\text{Zr}0.92\text{O}_{1.96}}$ phosphors. <i>Journal of the American Ceramic Society</i> , 2022, 105, 428-440.	1.9	6
103	Phase-locking particle image velocimetry measurements of acoustic-driven flow interactions between tandem deep cavities. <i>Physics of Fluids</i> , 2020, 32, .	1.6	6
104	Resolving dynamic features of kilohertz pressure fluctuations using fast-responding pressure-sensitive paint: measurement of inclined jet impingement. <i>Experiments in Fluids</i> , 2022, 63, 1.	1.1	6
105	Active Flow Control in an S-Shaped Duct at Mach 0.4 Using Sweeping Jet Actuators. <i>Experimental Thermal and Fluid Science</i> , 2022, , 110699.	1.5	6
106	Self-sustained oscillation of the flow in a double-cavity channel: a time-resolved PIV measurement. <i>Journal of Visualization</i> , 2020, 23, 245-257.	1.1	5
107	Simultaneous measurements of time-resolved velocity and concentration fields behind a sand dune-inspired jet in crossflow. <i>Physics of Fluids</i> , 2021, 33, .	1.6	5
108	Sequential data assimilation with multiple nonlinear models and applications to subsurface flow. <i>Journal of Computational Physics</i> , 2017, 346, 356-368.	1.9	4

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109	Unsteady flow structures behind a shark denticle replica on the wall: Time-resolved particle image velocimetry measurements. <i>Physics of Fluids</i> , 2021, 33, .	1.6	3
110	Hydrodynamic benefits of protruding eyes and mouth in a self-propelled flexible stingray. <i>Physics of Fluids</i> , 2021, 33, .	1.6	3
111	Transient Thermal Behaviors of Ultra-Supercritical Steam Turbine Control Valves During the Cold Start Warm-Up Process: Conjugate Heat Transfer Simulation and Field Data Validation. <i>Journal of Heat Transfer</i> , 2019, 141, .	1.2	3
112	Dynamic delayed detached-eddy simulation and acoustic analogy analysis of unsteady flow through a sudden expansion pipe. <i>Journal of Visualization</i> , 2022, 25, 999-1015.	1.1	3
113	Light field enhancement of particle image velocimetry measurement using a profiled window and a ray tracing method. <i>Experimental Thermal and Fluid Science</i> , 2019, 106, 25-37.	1.5	2
114	Temporally resolved reconstruction of sweeping jet flow field based on sub-Nyquist-rate PIV data. <i>Measurement Science and Technology</i> , 2021, 32, 125303.	1.4	2
115	Phosphorescence-based temperature and tactile multi-functional flexible sensing skin. <i>Sensors and Actuators A: Physical</i> , 2021, 332, 113205.	2.0	2
116	Improved Turbine Vane Endwall Film Cooling by Using Sand-Dune-Inspired Design. <i>Journal of Thermal Science</i> , 2022, 31, 958-973.	0.9	2
117	Enhancement of oxygen/pressure sensing performance of Eu ³⁺ -doped YSZ phosphors via Bi ³⁺ sensitization. <i>Ceramics International</i> , 2022, 48, 31587-31597.	2.3	2
118	Interaction between separation bubble and impinging vortices over a finite blunt plate. <i>International Journal of Heat and Fluid Flow</i> , 2020, 82, 108534.	1.1	1
119	10.1063/1.5016403.1. , 2018, , .		0
120	10.1063/1.5086907.2. , 2019, , .		0
121	10.1063/1.5086907.1. , 2019, , .		0
122	Influence of tandem fluttering membranes on flow dynamics and heat transfer in turbulent channel flow. <i>Physics of Fluids</i> , 2022, 34, 015118.	1.6	0
123	Dual-FPGA-PIV measurements of unsteady flow dynamics resonated via the duct acoustic mode with half-wavelength arranged side-branches. <i>Experiments in Fluids</i> , 2022, 63, 1.	1.1	0