

# Laurent David

## List of Publications by Year in descending order

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93  
papers

1,638  
citations

218677  
26  
h-index

330143  
37  
g-index

100  
all docs

100  
docs citations

100  
times ranked

1164  
citing authors

#	ARTICLE	IF	CITATIONS
1	Unsteady aerodynamic forces estimation on a square cylinder by TR-PIV. Experiments in Fluids, 2007, 42, 185-196.	2.4	92
2	Comparative assessment of pressure field reconstructions from particle image velocimetry measurements and Lagrangian particle tracking. Experiments in Fluids, 2017, 58, 1.	2.4	85
3	Topologies and measurements of turbulent flow in vertical slot fishways. Hydrobiologia, 2008, 609, 177-188.	2.0	71
4	Three-dimensional effects in hovering flapping flight. Journal of Fluid Mechanics, 2012, 702, 102-125.	3.4	70
5	Unsteady aspect of the electrohydrodynamic force produced by surface dielectric barrier discharge actuators. Applied Physics Letters, 2012, 100, .	3.3	56
6	Free surface measurement by stereo-refraction. Experiments in Fluids, 2013, 54, 1.	2.4	53
7	Two-dimensional free surface flow numerical model for vertical slot fishways. Journal of Hydraulic Research/De Recherches Hydrauliques, 2010, 48, 141-151.	1.7	44
8	Stereoscopic particle image velocimetry measurements of the flow around a surface-mounted block. Experiments in Fluids, 2004, 36, 53-61.	2.4	43
9	Spanwise gradients in flow speed help stabilize leading-edge vortices on revolving wings. Physical Review E, 2014, 90, 013011.	2.1	42
10	S-PIV comparative assessment: image dewarping+misalignment correction and pinhole+geometric back projection. Experiments in Fluids, 2005, 39, 257-266.	2.4	40
11	An experimental study on fish-friendly trashracks “ Part 2. Angled trashracks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 67-75.	1.7	40
12	A parametric PIV/DIC method for the measurement of free surface flows. Experiments in Fluids, 2013, 54, 1.	2.4	38
13	Aerodynamic characteristics of flapping motion in hover. Experiments in Fluids, 2007, 44, 23-36.	2.4	37
14	Detailed experimental study of hydrodynamic turbulent flows generated in vertical slot fishways. Environmental Fluid Mechanics, 2011, 11, 1-21.	1.6	37
15	Coriolis effects enhance lift on revolving wings. Physical Review E, 2015, 91, 031001.	2.1	37
16	Measurement of three-dimensional hand kinematics during swimming with a motion capture system: a feasibility study. Sports Engineering, 2014, 17, 171-181.	1.1	36
17	Loads and pressure evaluation of the flow around a flapping wing from instantaneous 3D velocity measurements. Experiments in Fluids, 2015, 56, 1.	2.4	36
18	An experimental study on fish-friendly trashracks “ Part 1. Inclined trashracks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 56-66.	1.7	35

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19	Sequential least-square reconstruction of instantaneous pressure field around a body from TR-PIV. Experiments in Fluids, 2018, 59, 1.	2.4	34
20	Contribution of experimental fluid mechanics to the design of vertical slot fish passes. Knowledge and Management of Aquatic Ecosystems, 2010, , 02.	1.1	33
21	Characterization of vortical structures and loads based on time-resolved PIV for asymmetric hovering flapping flight. Experiments in Fluids, 2009, 46, 847-857.	2.4	32
22	Time-resolved scanning tomography PIV measurements around a flapping wing. Experiments in Fluids, 2012, 52, 857-864.	2.4	32
23	Characterization by proper-orthogonal-decomposition of the passive controlled wake flow downstream of a half cylinder. Experiments in Fluids, 2005, 39, 730-742.	2.4	31
24	On the non-intrusive evaluation of fluid forces with the momentum equation approach. Measurement Science and Technology, 2009, 20, 095401.	2.6	30
25	Optimization of the volume reconstruction for classical Tomo-PIV algorithms (MART, BIMART and) Tj ETQq1 1 0.784314 rgBT /Overlook	2.6	30
26	Modification of vertical slot fishway flow with a supplementary cylinder. Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 614-629.	1.7	27
27	Fluid trajectory evaluation based on an ensemble-averaged cross-correlation in time-resolved PIV. Experiments in Fluids, 2014, 55, 1.	2.4	27
28	3-Component acceleration field measurement by dual-time stereoscopic particle image velocimetry. Experiments in Fluids, 2006, 40, 813-824.	2.4	25
29	Analysis and reconstruction of a pulsed jet in crossflow by multi-plane snapshot POD. Experiments in Fluids, 2009, 47, 707-720.	2.4	25
30	Single pixel resolution correlation applied to unsteady flow measurements. Measurement Science and Technology, 2004, 15, 1039-1045.	2.6	24
31	Spectral analysis of ship waves in deep water from accurate measurements of the free surface elevation by optical methods. Physics of Fluids, 2014, 26, .	4.0	22
32	Large-scale free surface measurement for the analysis of ship waves in a towing tank. Experiments in Fluids, 2015, 56, 1.	2.4	22
33	Boundary between unsteady and overturning ship bow wave regimes. Journal of Fluid Mechanics, 2009, 620, 167-175.	3.4	20
34	Comparative study between fully tethered and free swimming at different paces of swimming in front crawl. Sports Biomechanics, 2019, 18, 571-586.	1.6	20
35	Energy distribution in shallow water ship wakes from a spectral analysis of the wave field. Physics of Fluids, 2016, 28, .	4.0	19
36	Correlation between vortex structures and unsteady loads for flapping motion in hover. Experiments in Fluids, 2009, 47, 655-664.	2.4	17

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37	Kinematic hand parameters in front crawl at different paces of swimming. <i>Journal of Biomechanics</i> , 2015, 48, 3743-3750.	2.1	17
38	Laminar junction flow at low Reynolds number: influence of the upstream region on the comparison between experiments and calculations. <i>Comptes Rendus - Mecanique</i> , 2005, 333, 265-272.	2.1	16
39	Microgravity Laminar Diffusion Flame In a Perpendicular Fuel and Oxidizer Stream Configuration. <i>AIAA Journal</i> , 2005, 43, 1725-1733.	2.6	16
40	Analysis of a swimmer's hand and forearm in impulsive start from rest using computational fluid dynamics in unsteady flow conditions. <i>Journal of Biomechanics</i> , 2018, 67, 157-165.	2.1	16
41	Free-surface flow measurements by non-intrusive methods: a survey. <i>Experiments in Fluids</i> , 2022, 63, .	2.4	15
42	Bayesian inference applied to spatio-temporal reconstruction of flows around a NACA0012 airfoil. <i>Experiments in Fluids</i> , 2014, 55, 1.	2.4	13
43	Unsteady computational fluid dynamics in front crawl swimming. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 783-793.	1.6	13
44	A novel method to generate tidal-like bores in the laboratory. <i>European Journal of Mechanics, B/Fluids</i> , 2016, 55, 31-38.	2.5	12
45	Streamwise bars in fish-friendly angled trashracks. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2014, 52, 426-431.	1.7	11
46	Contribution of a short separating plate on the control of the swirling process downstream a half-cylinder. <i>Experimental Thermal and Fluid Science</i> , 2002, 26, 565-572.	2.7	10
47	Root Cutout Effects on the Aerodynamics of a Low-Aspect-Ratio Revolving Wing. <i>AIAA Journal</i> , 2017, 55, 2717-2726.	2.6	9
48	Coupled measurements of interface topography and three-dimensional velocity field of a free surface flow. <i>Experiments in Fluids</i> , 2021, 62, 1.	2.4	9
49	Time-resolved flow reconstruction with indirect measurements using regression models and Kalman-filtered POD ROM. <i>Experiments in Fluids</i> , 2018, 59, 1.	2.4	8
50	Experimental-Based Methodology to Improve the Design of Vertical Slot Fishways. <i>Journal of Hydraulic Engineering</i> , 2019, 145, .	1.5	8
51	Vortex shedding process investigation downstream a surface-mounted block. <i>Journal of Visualization</i> , 2005, 8, 99-108.	1.8	7
52	Unsteady pressure estimation and compensation capabilities of the hybrid simulation combining PIV and DNS. <i>Measurement Science and Technology</i> , 2018, 29, 125305.	2.6	6
53	Numerical investigation of three-dimensional asymmetric hovering flapping flight. <i>Physics of Fluids</i> , 2021, 33, .	4.0	6
54	Tomographic Reconstruction of 3D Objects Using Marked Point Process Framework. <i>Journal of Mathematical Imaging and Vision</i> , 2018, 60, 1132-1149.	1.3	5

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55	Uncertainty analysis of an optical method for pressure estimation in fluid flows. Measurement Science and Technology, 2018, 29, 024004.	2.6	5
56	A few techniques to improve data-driven reduced-order simulations for unsteady flows. Computers and Fluids, 2020, 201, 104455.	2.5	5
57	Experimental study of the influence of macro-roughnesses on vertical slot fishway flows. Houille Blanche, 2017, 103, 9-14.	0.3	5
58	3D particle volume tomographic reconstruction based on marked point process: Application to Tomo-PIV in fluid mechanics. , 2014, , .		4
59	Maximum likelihood estimation of missing data applied to flow reconstruction around NACA profiles. Fluid Dynamics Research, 2015, 47, 051406.	1.3	4
60	F2DPR: a fast and robust cross-correlation technique for volumetric PIV. Measurement Science and Technology, 2016, 27, 084007.	2.6	4
61	A KINEMATIC STUDY OF HYDRODYNAMIC FLOWS USING PARTICLE STREAK VELOCIMETRY TECHNIQUE. Journal of Flow Visualization and Image Processing, 1996, 3, 279-298.	0.5	4
62	The effect of flap-end additions on aircraft trailing vortices. Aeronautical Journal, 2004, 108, 109-115.	1.6	3
63	Stereoscopic measurement of free surface flows. EPJ Web of Conferences, 2010, 6, 12002.	0.3	3
64	Particle volume reconstruction based on a marked point process and application to TOMO-PIV. , 2015, , .		3
65	The role of the entry-and-stretch phase at the different paces of race in front crawl swimming. Journal of Sports Sciences, 2015, 33, 1535-1543.	2.0	3
66	Contribution of Different Elements of Inclined Trash Racks to Head Losses Modeling. Water (Switzerland), 2020, 12, 966.	2.7	3
67	Experimental study of fish-friendly angled bar racks with horizontal bars. Journal of Hydraulic Research/De Recherches Hydrauliques, 0, , 1-12.	1.7	3
68	Study on fish-friendly inclined and angled trashracks1. Houille Blanche, 2015, 101, 31-36.	0.3	3
69	Experimental and computational studies of the front crawl swimming, at the end of the entry-and-stretch phase. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 224-226.	1.6	2
70	Instantaneous volumic concentration and velocity measurements of a jet in crossflow for the evaluation of the entrainment. Experiments in Fluids, 2013, 54, 1.	2.4	2
71	Implementation of vibration correction schemes to the evaluation of a turbulent flow in an open channel by tomographic particle image velocimetry. Measurement Science and Technology, 2015, 26, 015303.	2.6	2
72	Calibrating and measuring wakes and drag forces of inland vessels in confined water in a towing tank. Ocean Engineering, 2019, 186, 106134.	4.3	2

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73	Effects of finite water depth and lateral confinement on ships wakes and resistance. Journal of Hydrodynamics, 2020, 32, 582-590.	3.2	2
74	D'Almeida's estimation des incertitudes de mesure dans un laboratoire de recherche : apport et perspectives - exemple d'un laboratoire de recherche en hydrologie des milieux aquatiques. , 2015, , .		2
75	Fish Guidance Structures with Narrow Bar Spacing: Physical Barriers. , 2022, , 91-98.		2
76	Field measurements of the attractivity of bypasses for fishfriendly trashrack. E3S Web of Conferences, 2018, 40, 03039.	0.5	1
77	Characterization of vortical structures and loads based on time-resolved PIV for asymmetric hovering flapping flight. , 2010, , 285-295.		1
78	Development of optical methods for surface and volumetric measurements. , 2017, , .		1
79	Eulerian and Lagrangian coherent structures in a positive surge. Experiments in Fluids, 2022, 63, 1.	2.4	1
80	Influence of the buoyancy on a jet in crossflow. Journal of Visualization, 2007, 10, 251-251.	1.8	0
81	Etude expérimentale et théorique de la vague d'étrave des navires. European Journal of Environmental and Civil Engineering, 2008, 12, 629-640.	2.1	0
82	Full 3D displacement field measurement by Optical Scanning Tomography and PIV Tomography. EPJ Web of Conferences, 2010, 6, 35001.	0.3	0
83	Closure to "An experimental study on fish-friendly trashracks: part I & II". Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 146-147.	1.7	0
84	Unsteady forces on a hand in swimming in impulsive start configuration. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, S187-S188.	1.6	0
85	Le projet FITHydro: une initiative européenne pour une hydroélectricité durable et respectueuse des poissons. Houille Blanche, 2018, 104, 77-79.	0.3	0
86	Prediction of Elbow Flow Dynamics Using Correlated Wall Pressure Data. , 2018, , .		0
87	A Simplified Approach to Estimate Flow-Induced Vibrations on an Elbowed Piping System. , 2018, , .		0
88	Mechanical vs. phenomenological formulations to determine mean aerodynamic drag from stereo-PIV wake measurements. Experiments in Fluids, 2019, 60, 1.	2.4	0
89	Impulsive Start-Up of a Deformable Flapping Wing at Different Angular Conditions. Lecture Notes in Mechanical Engineering, 2021, , 121-126.	0.4	0
90	3D-PIV Measurements near the Wall. , 2004, , 407-416.		0

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91	COMBINED SPIV-PLIF AND ORTHOGONAL PLIF MEASUREMENTS: MIXING IN A PULSED JET IN CROSSFLOW. Journal of Flow Visualization and Image Processing, 2012, 19, 355-382.	0.5	0
92	Experimental investigation of light particles transport in a tidal bore generated in a flume. , 2016, , 478-484.		0
93	Application of a variational approach to the computation of forces around a wing. Experiments in Fluids, 2022, 63, 1.	2.4	0