

Laurent David

List of Publications by Year in descending order

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93
papers

1,638
citations

218592

26
h-index

330025

37
g-index

100
all docs

100
docs citations

100
times ranked

1164
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of a variational approach to the computation of forces around a wing. Experiments in Fluids, 2022, 63, 1.	1.1	0
2	Eulerian and Lagrangian coherent structures in a positive surge. Experiments in Fluids, 2022, 63, 1.	1.1	1
3	Free-surface flow measurements by non-intrusive methods: a survey. Experiments in Fluids, 2022, 63, .	1.1	15
4	Fish Guidance Structures with Narrow Bar Spacing: Physical Barriers. , 2022, , 91-98.		2
5	Impulsive Start-Up of a Deformable Flapping Wing at Different Angular Conditions. Lecture Notes in Mechanical Engineering, 2021, , 121-126.	0.3	0
6	Coupled measurements of interface topography and three-dimensional velocity field of a free surface flow. Experiments in Fluids, 2021, 62, 1.	1.1	9
7	Numerical investigation of three-dimensional asymmetric hovering flapping flight. Physics of Fluids, 2021, 33, .	1.6	6
8	Effects of finite water depth and lateral confinement on ships wakes and resistance. Journal of Hydrodynamics, 2020, 32, 582-590.	1.3	2
9	Contribution of Different Elements of Inclined Trash Racks to Head Losses Modeling. Water (Switzerland), 2020, 12, 966.	1.2	3
10	A few techniques to improve data-driven reduced-order simulations for unsteady flows. Computers and Fluids, 2020, 201, 104455.	1.3	5
11	Calibrating and measuring wakes and drag forces of inland vessels in confined water in a towing tank. Ocean Engineering, 2019, 186, 106134.	1.9	2
12	Experimental-Based Methodology to Improve the Design of Vertical Slot Fishways. Journal of Hydraulic Engineering, 2019, 145, .	0.7	8
13	Mechanical vs. phenomenological formulations to determine mean aerodynamic drag from stereo-PIV wake measurements. Experiments in Fluids, 2019, 60, 1.	1.1	0
14	Comparative study between fully tethered and free swimming at different paces of swimming in front crawl. Sports Biomechanics, 2019, 18, 571-586.	0.8	20
15	Tomographic Reconstruction of 3D Objects Using Marked Point Process Framework. Journal of Mathematical Imaging and Vision, 2018, 60, 1132-1149.	0.8	5
16	Sequential least-square reconstruction of instantaneous pressure field around a body from TR-PIV. Experiments in Fluids, 2018, 59, 1.	1.1	34
17	Analysis of a swimmer's hand and forearm in impulsive start from rest using computational fluid dynamics in unsteady flow conditions. Journal of Biomechanics, 2018, 67, 157-165.	0.9	16
18	Time-resolved flow reconstruction with indirect measurements using regression models and Kalman-filtered POD ROM. Experiments in Fluids, 2018, 59, 1.	1.1	8

#	ARTICLE	IF	CITATIONS
19	Uncertainty analysis of an optical method for pressure estimation in fluid flows. Measurement Science and Technology, 2018, 29, 024004.	1.4	5
20	Field measurements of the attractivity of bypasses for fishfriendly trashrack. E3S Web of Conferences, 2018, 40, 03039.	0.2	1
21	Unsteady pressure estimation and compensation capabilities of the hybrid simulation combining PIV and DNS. Measurement Science and Technology, 2018, 29, 125305.	1.4	6
22	Le projet FIThydroÂ: une initiative europÃ©enne pour une hydroÃ©lectricitÃ© durable et respectueuse des poissons. Houille Blanche, 2018, 104, 77-79.	0.3	0
23	Prediction of Elbow Flow Dynamics Using Correlated Wall Pressure Data. , 2018, , .		0
24	A Simplified Approach to Estimate Flow-Induced Vibrations on an Elbowed Piping System. , 2018, , .		0
25	Root Cutout Effects on the Aerodynamics of a Low-Aspect-Ratio Revolving Wing. AIAA Journal, 2017, 55, 2717-2726.	1.5	9
26	Comparative assessment of pressure field reconstructions from particle image velocimetry measurements and Lagrangian particle tracking. Experiments in Fluids, 2017, 58, 1.	1.1	85
27	Unsteady computational fluid dynamics in front crawl swimming. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 783-793.	0.9	13
28	Unsteady forces on a hand in swimming in impulsive start configuration. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, S187-S188.	0.9	0
29	Experimental study of the influence of macro-roughnesses on vertical slot fishway flows. Houille Blanche, 2017, 103, 9-14.	0.3	5
30	Development of optical methods for surface and volumetric measurements. , 2017, , .		1
31	F2DPR: a fast and robust cross-correlation technique for volumetric PIV. Measurement Science and Technology, 2016, 27, 084007.	1.4	4
32	Energy distribution in shallow water ship wakes from a spectral analysis of the wave field. Physics of Fluids, 2016, 28, .	1.6	19
33	A novel method to generate tidal-like bores in the laboratory. European Journal of Mechanics, B/Fluids, 2016, 55, 31-38.	1.2	12
34	Experimental investigation of light particles transport in a tidal bore generated in a flume. , 2016, , 478-484.		0
35	Large-scale free surface measurement for the analysis of ship waves in a towing tank. Experiments in Fluids, 2015, 56, 1.	1.1	22
36	Particle volume reconstruction based on a marked point process and application to TOMO-PIV. , 2015, , .		3

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37	Maximum likelihood estimation of missing data applied to flow reconstruction around NACA profiles. Fluid Dynamics Research, 2015, 47, 051406.	0.6	4
38	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.	1.4	2
39	Loads and pressure evaluation of the flow around a flapping wing from instantaneous 3D velocity measurements. Experiments in Fluids, 2015, 56, 1.	1.1	36
40	Coriolis effects enhance lift on revolving wings. Physical Review E, 2015, 91, 031001.	0.8	37
41	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.	1.0	3
42	Kinematic hand parameters in front crawl at different paces of swimming. Journal of Biomechanics, 2015, 48, 3743-3750.	0.9	17
43	Study on fish-friendly inclined and angled trashracks1. Houille Blanche, 2015, 101, 31-36.	0.3	3
44	D'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
45	Optimization of the volume reconstruction for classical Tomo-PIV algorithms (MART, BIMART and) Tj ETQq1 1 0.784314 rgBT/Overlo	1.4	30
46	Spectral analysis of ship waves in deep water from accurate measurements of the free surface elevation by optical methods. Physics of Fluids, 2014, 26, .	1.6	22
47	3D particle volume tomographic reconstruction based on marked point process: Application to Tomo-PIV in fluid mechanics. , 2014, , .		4
48	Modification of vertical slot fishway flow with a supplementary cylinder. Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 614-629.	0.7	27
49	Bayesian inference applied to spatio-temporal reconstruction of flows around a NACA0012 airfoil. Experiments in Fluids, 2014, 55, 1.	1.1	13
50	Closure to "An experimental study on fish-friendly trashracks: part I & II". Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 146-147.	0.7	0
51	Fluid trajectory evaluation based on an ensemble-averaged cross-correlation in time-resolved PIV. Experiments in Fluids, 2014, 55, 1.	1.1	27
52	Spanwise gradients in flow speed help stabilize leading-edge vortices on revolving wings. Physical Review E, 2014, 90, 013011.	0.8	42
53	Measurement of three-dimensional hand kinematics during swimming with a motion capture system: a feasibility study. Sports Engineering, 2014, 17, 171-181.	0.5	36
54	Streamwise bars in fish-friendly angled trashracks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 426-431.	0.7	11

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55	An experimental study on fish-friendly trashracks – Part 1. Inclined trashracks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 56-66.	0.7	35
56	Free surface measurement by stereo-refraction. Experiments in Fluids, 2013, 54, 1.	1.1	53
57	A parametric PIV/DIC method for the measurement of free surface flows. Experiments in Fluids, 2013, 54, 1.	1.1	38
58	Instantaneous volumic concentration and velocity measurements of a jet in crossflow for the evaluation of the entrainment. Experiments in Fluids, 2013, 54, 1.	1.1	2
59	An experimental study on fish-friendly trashracks – Part 2. Angled trashracks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 67-75.	0.7	40
60	Three-dimensional effects in hovering flapping flight. Journal of Fluid Mechanics, 2012, 702, 102-125.	1.4	70
61	Unsteady aspect of the electrohydrodynamic force produced by surface dielectric barrier discharge actuators. Applied Physics Letters, 2012, 100, .	1.5	56
62	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.	0.9	2
63	Time-resolved scanning tomography PIV measurements around a flapping wing. Experiments in Fluids, 2012, 52, 857-864.	1.1	32
64	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.	0.3	0
65	Detailed experimental study of hydrodynamic turbulent flows generated in vertical slot fishways. Environmental Fluid Mechanics, 2011, 11, 1-21.	0.7	37
66	Stereoscopic measurement of free surface flows. EPJ Web of Conferences, 2010, 6, 12002.	0.1	3
67	Full 3D displacement field measurement by Optical Scanning Tomography and PIV Tomography. EPJ Web of Conferences, 2010, 6, 35001.	0.1	0
68	Contribution of experimental fluid mechanics to the design of vertical slot fish passes. Knowledge and Management of Aquatic Ecosystems, 2010, , 02.	0.5	33
69	Two-dimensional free surface flow numerical model for vertical slot fishways. Journal of Hydraulic Research/De Recherches Hydrauliques, 2010, 48, 141-151.	0.7	44
70	Characterization of vortical structures and loads based on time-resolved PIV for asymmetric hovering flapping flight. , 2010, , 285-295.		1
71	On the non-intrusive evaluation of fluid forces with the momentum equation approach. Measurement Science and Technology, 2009, 20, 095401.	1.4	30
72	Characterization of vortical structures and loads based on time-resolved PIV for asymmetric hovering flapping flight. Experiments in Fluids, 2009, 46, 847-857.	1.1	32

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73	Correlation between vortex structures and unsteady loads for flapping motion in hover. Experiments in Fluids, 2009, 47, 655-664.	1.1	17
74	Analysis and reconstruction of a pulsed jet in crossflow by multi-plane snapshot POD. Experiments in Fluids, 2009, 47, 707-720.	1.1	25
75	Boundary between unsteady and overturning ship bow wave regimes. Journal of Fluid Mechanics, 2009, 620, 167-175.	1.4	20
76	Topologies and measurements of turbulent flow in vertical slot fishways. Hydrobiologia, 2008, 609, 177-188.	1.0	71
77	Etude expérimentale et théorique de la vague d'étrave des navires. European Journal of Environmental and Civil Engineering, 2008, 12, 629-640.	1.0	0
78	Influence of the buoyancy on a jet in crossflow. Journal of Visualization, 2007, 10, 251-251.	1.1	0
79	Unsteady aerodynamic forces estimation on a square cylinder by TR-PIV. Experiments in Fluids, 2007, 42, 185-196.	1.1	92
80	Aerodynamic characteristics of flapping motion in hover. Experiments in Fluids, 2007, 44, 23-36.	1.1	37
81	3-Component acceleration field measurement by dual-time stereoscopic particle image velocimetry. Experiments in Fluids, 2006, 40, 813-824.	1.1	25
82	Laminar junction flow at low Reynolds number: influence of the upstream region on the comparison between experiments and calculations. Comptes Rendus - Mécanique, 2005, 333, 265-272.	2.1	16
83	Characterization by proper-orthogonal-decomposition of the passive controlled wake flow downstream of a half cylinder. Experiments in Fluids, 2005, 39, 730-742.	1.1	31
84	S-PIV comparative assessment: image dewarping+misalignment correction and pinhole+geometric back projection. Experiments in Fluids, 2005, 39, 257-266.	1.1	40
85	Vortex shedding process investigation downstream a surface-mounted block. Journal of Visualization, 2005, 8, 99-108.	1.1	7
86	Microgravity Laminar Diffusion Flame In a Perpendicular Fuel and Oxidizer Stream Configuration. AIAA Journal, 2005, 43, 1725-1733.	1.5	16
87	Single pixel resolution correlation applied to unsteady flow measurements. Measurement Science and Technology, 2004, 15, 1039-1045.	1.4	24
88	Stereoscopic particle image velocimetry measurements of the flow around a surface-mounted block. Experiments in Fluids, 2004, 36, 53-61.	1.1	43
89	The effect of flap-end additions on aircraft trailing vortices. Aeronautical Journal, 2004, 108, 109-115.	1.1	3
90	3D-PIV Measurements near the Wall. , 2004, , 407-416.		0

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91	Contribution of a short separating plate on the control of the swirling process downstream a half-cylinder. Experimental Thermal and Fluid Science, 2002, 26, 565-572.	1.5	10
92	A KINEMATIC STUDY OF HYDRODYNAMIC FLOWS USING PARTICLE STREAK VELOCIMETRY TECHNIQUE. Journal of Flow Visualization and Image Processing, 1996, 3, 279-298.	0.3	4
93	Experimental study of fish-friendly angled bar racks with horizontal bars. Journal of Hydraulic Research/De Recherches Hydrauliques, 0, , 1-12.	0.7	3