

Nathanael Machicoane

List of Publications by Year in descending order

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34
papers

326
citations

840776

11
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940533

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all docs

34
docs citations

34
times ranked

221
citing authors

#	ARTICLE	IF	CITATIONS
1	Synchrotron radiography characterization of the liquid core dynamics in a canonical two-fluid coaxial atomizer. <i>International Journal of Multiphase Flow</i> , 2019, 115, 1-8.	3.4	31
2	Large sphere motion in a nonhomogeneous turbulent flow. <i>New Journal of Physics</i> , 2014, 16, 013053.	2.9	25
3	A quantitative study of track initialization of the four-frame best estimate algorithm for three-dimensional Lagrangian particle tracking. <i>Measurement Science and Technology</i> , 2019, 30, 045302.	2.6	17
4	Influence of the multipole order of the source on the decay of an inertial wave beam in a rotating fluid. <i>Physics of Fluids</i> , 2015, 27, .	4.0	16
5	A simplified and versatile calibration method for multi-camera optical systems in 3D particle imaging. <i>Review of Scientific Instruments</i> , 2019, 90, 035112.	1.3	16
6	Influence of steady and oscillating swirl on the near-field spray characteristics in a two-fluid coaxial atomizer. <i>International Journal of Multiphase Flow</i> , 2020, 129, 103318.	3.4	16
7	Lagrangian velocity and acceleration correlations of large inertial particles in a closed turbulent flow. <i>Physics of Fluids</i> , 2016, 28, .	4.0	14
8	Turbulent drag in a rotating frame. <i>Journal of Fluid Mechanics</i> , 2016, 794, .	3.4	14
9	Comparison of X-ray and optical measurements in the near-field of an optically dense coaxial air-assisted atomizer. <i>International Journal of Multiphase Flow</i> , 2020, 125, 103219.	3.4	14
10	Diffusiophoresis at the macroscale. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	14
11	Melting dynamics of large ice balls in a turbulent swirling flow. <i>Physics of Fluids</i> , 2013, 25, .	4.0	13
12	A Cost-efficient Shadow Particle Tracking Velocimetry Setup Suitable for Tracking Small Objects in a Large Volume. <i>Procedia IUTAM</i> , 2017, 20, 175-182.	1.2	11
13	The effect of Dean, Reynolds and Womersley numbers on the flow in a spherical cavity on a curved round pipe. Part 1. Fluid mechanics in the cavity as a canonical flow representing intracranial aneurysms. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	10
14	Stochastic dynamics of particles trapped in turbulent flows. <i>Physical Review E</i> , 2016, 93, 023118.	2.1	9
15	Role of convective acceleration in the interfacial instability of liquid-gas coaxial jets. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	9
16	Production and dissipation of turbulent fluctuations close to a stagnation point. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	9
17	Lagrangian acceleration timescales in anisotropic turbulence. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	9
18	The effect of Dean, Reynolds and Womersley numbers on the flow in a spherical cavity on a curved round pipe. Part 2. The haemodynamics of intracranial aneurysms treated with flow-diverting stents. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	8

#	ARTICLE	IF	CITATIONS
19	Two-dimensionalization of the flow driven by a slowly rotating impeller in a rapidly rotating fluid. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	8
20	Spray dispersion regimes following atomization in a turbulent co-axial gas jet. <i>Journal of Fluid Mechanics</i> , 2022, 932, .	3.4	8
21	TIME-AVERAGED SPRAY ANALYSIS IN THE NEAR-FIELD REGION USING BROADBAND AND NARROW/BAND X-RAY MEASUREMENTS. <i>Atomization and Sprays</i> , 2019, 29, 331-349.	0.8	7
22	A multi-time-step noise reduction method for measuring velocity statistics from particle tracking velocimetry. <i>Measurement Science and Technology</i> , 2017, 28, 107002.	2.6	6
23	Coupled x-ray high-speed imaging and pressure measurements in a cavitating backward facing step flow. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	6
24	Wake of inertial waves of a horizontal cylinder in horizontal translation. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	6
25	FEEDBACK CONTROL OF COAXIAL ATOMIZATION BASED ON THE SPRAY LIQUID DISTRIBUTION. <i>Atomization and Sprays</i> , 2019, 29, 545-551.	0.8	6
26	Estimating two-point statistics from derivatives of a signal containing noise: Application to auto-correlation functions of turbulent Lagrangian tracks. <i>Review of Scientific Instruments</i> , 2017, 88, 065113.	1.3	5
27	FEEDBACK CONTROL OF THE SPRAY LIQUID DISTRIBUTION OF ELECTROSTATICALLY ASSISTED COAXIAL ATOMIZATION. <i>Atomization and Sprays</i> , 2020, 30, 1-9.	0.8	5
28	Spatial characterization of the flapping instability of a laminar liquid jet fragmented by a swirled gas co-flow. <i>International Journal of Multiphase Flow</i> , 2022, 152, 104056.	3.4	4
29	Recent Developments in Particle Tracking Diagnostics for Turbulence Research. <i>Soft and Biological Matter</i> , 2019, , 177-209.	0.3	3
30	Effect of electrostatic forcing on coaxial two-fluid atomization. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	3
31	Path instability on a sphere towed at constant speed. <i>Journal of Fluids and Structures</i> , 2015, 58, 99-108.	3.4	2
32	Transport of large particles through the transition to turbulence of a swirling flow. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	2
33	Small Scale Statistics of Turbulent Fluctuations Close to a Stagnation Point. <i>ERCOFTAC Series</i> , 2019, , 125-132.	0.1	0
34	High-Speed Flow Visualization of a Canonical Airblast Atomizer Using Synchrotron X-Rays. , 2019, , .		0