

# Nathanael Machicoane

## List of Publications by Year in descending order

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Version: 2024-02-01

34  
papers

326  
citations

840776

11  
h-index

940533

16  
g-index

34  
all docs

34  
docs citations

34  
times ranked

221  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spray dispersion regimes following atomization in a turbulent co-axial gas jet. <i>Journal of Fluid Mechanics</i> , 2022, 932, .	3.4	8
2	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
3	Effect of electrostatic forcing on coaxial two-fluid atomization. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	3
4	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
5	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
6	Transport of large particles through the transition to turbulence of a swirling flow. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	2
7	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
8	Role of convective acceleration in the interfacial instability of liquid-gas coaxial jets. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	9
9	FEEDBACK CONTROL OF THE SPRAY LIQUID DISTRIBUTION OF ELECTROSTATICALLY ASSISTED COAXIAL ATOMIZATION. <i>Atomization and Sprays</i> , 2020, 30, 1-9.	0.8	5
10	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
11	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
12	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
13	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
14	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
15	Recent Developments in Particle Tracking Diagnostics for Turbulence Research. <i>Soft and Biological Matter</i> , 2019, , 177-209.	0.3	3
16	Lagrangian acceleration timescales in anisotropic turbulence. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	9
17	TIME-AVERAGED SPRAY ANALYSIS IN THE NEAR-FIELD REGION USING BROADBAND AND NARROWBAND X-RAY MEASUREMENTS. <i>Atomization and Sprays</i> , 2019, 29, 331-349.	0.8	7
18	FEEDBACK CONTROL OF COAXIAL ATOMIZATION BASED ON THE SPRAY LIQUID DISTRIBUTION. <i>Atomization and Sprays</i> , 2019, 29, 545-551.	0.8	6

#	ARTICLE	IF	CITATIONS
19	Small Scale Statistics of Turbulent Fluctuations Close to a Stagnation Point. ERCOFTAC Series, 2019, , 125-132.	0.1	0
20	High-Speed Flow Visualization of a Canonical Airblast Atomizer Using Synchrotron X-Rays. , 2019, , .		0
21	Wake of inertial waves of a horizontal cylinder in horizontal translation. Physical Review Fluids, 2018, 3, .	2.5	6
22	A multi-time-step noise reduction method for measuring velocity statistics from particle tracking velocimetry. Measurement Science and Technology, 2017, 28, 107002.	2.6	6
23	A Cost-efficient Shadow Particle Tracking Velocimetry Setup Suitable for Tracking Small Objects in a Large Volume. Procedia IUTAM, 2017, 20, 175-182.	1.2	11
24	Estimating two-point statistics from derivatives of a signal containing noise: Application to auto-correlation functions of turbulent Lagrangian tracks. Review of Scientific Instruments, 2017, 88, 065113.	1.3	5
25	Production and dissipation of turbulent fluctuations close to a stagnation point. Physical Review Fluids, 2017, 2, .	2.5	9
26	Lagrangian velocity and acceleration correlations of large inertial particles in a closed turbulent flow. Physics of Fluids, 2016, 28, .	4.0	14
27	Turbulent drag in a rotating frame. Journal of Fluid Mechanics, 2016, 794, .	3.4	14
28	Stochastic dynamics of particles trapped in turbulent flows. Physical Review E, 2016, 93, 023118.	2.1	9
29	Diffusiophoresis at the macroscale. Physical Review Fluids, 2016, 1, .	2.5	14
30	Two-dimensionalization of the flow driven by a slowly rotating impeller in a rapidly rotating fluid. Physical Review Fluids, 2016, 1, .	2.5	8
31	Influence of the multipole order of the source on the decay of an inertial wave beam in a rotating fluid. Physics of Fluids, 2015, 27, .	4.0	16
32	Path instability on a sphere towed at constant speed. Journal of Fluids and Structures, 2015, 58, 99-108.	3.4	2
33	Large sphere motion in a nonhomogeneous turbulent flow. New Journal of Physics, 2014, 16, 013053.	2.9	25
34	Melting dynamics of large ice balls in a turbulent swirling flow. Physics of Fluids, 2013, 25, .	4.0	13