

Stéphane Le Dizès

List of Publications by Year in descending order

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83
papers

2,275
citations

201575

27
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233338

45
g-index

86
all docs

86
docs citations

86
times ranked

1127
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics and Instabilities of Vortex Pairs. Annual Review of Fluid Mechanics, 2016, 48, 507-541.	10.8	213
2	Physics of vortex merging. Comptes Rendus Physique, 2005, 6, 431-450.	0.3	127
3	Short-term dynamics of a density interface following an impact. Journal of Fluid Mechanics, 2007, 577, 241-250.	1.4	94
4	Theoretical predictions for the elliptical instability in a two-vortex flow. Journal of Fluid Mechanics, 2002, 471, 169-201.	1.4	93
5	Viscous interactions of two co-rotating vortices before merging. Journal of Fluid Mechanics, 2002, 467, 389-410.	1.4	92
6	Three-dimensional instability of Burgers and Lambâ€œOseen vortices in a strain field. Journal of Fluid Mechanics, 1999, 378, 145-166.	1.4	77
7	Stability of the Rankine vortex in a multipolar strain field. Physics of Fluids, 2001, 13, 660-676.	1.6	70
8	Elliptical instability in a rotating spheroid. Journal of Fluid Mechanics, 2004, 505, 1-22.	1.4	58
9	Tidal instability in stellar and planetary binary systems. Physics of the Earth and Planetary Interiors, 2010, 178, 48-55.	0.7	57
10	Elliptic and triangular instabilities in rotating cylinders. Journal of Fluid Mechanics, 2003, 476, 357-388.	1.4	53
11	Non-axisymmetric vortices in two-dimensional flows. Journal of Fluid Mechanics, 2000, 406, 175-198.	1.4	51
12	Elliptic instability in a strained Batchelor vortex. Journal of Fluid Mechanics, 2007, 577, 341-361.	1.4	50
13	Experimental Study of the Multipolar Vortex Instability. Physical Review Letters, 2000, 85, 3400-3403.	2.9	47
14	Three-dimensional instability of a multipolar vortex in a rotating flow. Physics of Fluids, 2000, 12, 2762.	1.6	45
15	Internal waves generated by a stratified wake: experiment and theory. Journal of Fluid Mechanics, 2018, 846, 752-788.	1.4	45
16	Radiative instability in stratified vortices. Physics of Fluids, 2009, 21, .	1.6	40
17	SLOW DENSE GRANULAR FLOWS AS A SELF-INDUCED PROCESS. International Journal of Modeling, Simulation, and Scientific Computing, 2001, 04, 441-450.	0.9	39
18	Fluid flows in a librating cylinder. Physics of Fluids, 2012, 24, .	1.6	39

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19	On the three-dimensional instability of elliptical vortex subjected to stretching. <i>Physics of Fluids</i> , 1996, 8, 2084-2090.	1.6	37
20	Elliptical instability of the flow in a rotating shell. <i>Physics of the Earth and Planetary Interiors</i> , 2005, 151, 194-205.	0.7	35
21	Magnetic field induced by elliptical instability in a rotating spheroid. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2006, 100, 299-317.	0.4	35
22	Coriolis effects on the elliptical instability in cylindrical and spherical rotating containers. <i>Journal of Fluid Mechanics</i> , 2007, 585, 323-342.	1.4	34
23	An asymptotic description of vortex Kelvin modes. <i>Journal of Fluid Mechanics</i> , 2005, 542, 69.	1.4	33
24	Stability of a pair of co-rotating vortices with axial flow. <i>Physics of Fluids</i> , 2008, 20, .	1.6	33
25	Libration-induced mean flow in a spherical shell. <i>Journal of Fluid Mechanics</i> , 2013, 718, 181-209.	1.4	32
26	Structure, stability, and evolution of 3D Rossby vortices in protoplanetary disks. <i>Astronomy and Astrophysics</i> , 2013, 559, A30.	2.1	31
27	Structure of a stratified tilted vortex. <i>Journal of Fluid Mechanics</i> , 2007, 583, 443-458.	1.4	29
28	Short-wavelength instability of a vortex in a multipolar strain field. <i>Physics of Fluids</i> , 1999, 11, 500-502.	1.6	27
29	Tilt-induced instability of a stratified vortex. <i>Journal of Fluid Mechanics</i> , 2008, 596, 1-20.	1.4	27
30	Thermo-elliptical instability in a rotating cylindrical shell. <i>Journal of Fluid Mechanics</i> , 2006, 563, 189.	1.4	24
31	Viscous Critical-Layer Analysis of Vortex Normal Modes. <i>Studies in Applied Mathematics</i> , 2004, 112, 315-332.	1.1	23
32	The strato-rotational instability of Taylor-Couette and Keplerian flows. <i>Journal of Fluid Mechanics</i> , 2010, 660, 147-161.	1.4	23
33	Elliptic instability of a curved Batchelor vortex. <i>Journal of Fluid Mechanics</i> , 2016, 804, 224-247.	1.4	23
34	Stability analysis of plane wave solutions of the discrete Ginzburg-Landau equation. <i>Physical Review E</i> , 2000, 61, 390-393.	0.8	22
35	Waves on a columnar vortex in a strongly stratified fluid. <i>Physics of Fluids</i> , 2009, 21, .	1.6	22
36	Viscous stability properties of a Lamb-Oseen vortex in a stratified fluid. <i>Journal of Fluid Mechanics</i> , 2010, 645, 255-278.	1.4	22

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37	Temporal instability modes of supersonic round jets. <i>Journal of Fluid Mechanics</i> , 2010, 662, 173-196.	1.4	21
38	Curvature instability of a curved Batchelor vortex. <i>Journal of Fluid Mechanics</i> , 2017, 814, 397-415.	1.4	21
39	Large-Reynolds-number asymptotic analysis of viscous centre modes in vortices. <i>Journal of Fluid Mechanics</i> , 2007, 585, 153-180.	1.4	20
40	Inviscid waves on a Lamb-Oseen vortex in a rotating stratified fluid: consequences for the elliptic instability. <i>Journal of Fluid Mechanics</i> , 2008, 597, 283-303.	1.4	20
41	Elliptic instability of a stratified fluid in a rotating cylinder. <i>Journal of Fluid Mechanics</i> , 2010, 660, 240-257.	1.4	20
42	Radiative instability of the flow around a rotating cylinder in a stratified fluid. <i>Journal of Fluid Mechanics</i> , 2011, 672, 130-146.	1.4	20
43	Vortices in stratified protoplanetary disks. <i>Astronomy and Astrophysics</i> , 2016, 592, A136.	2.1	19
44	Elliptic instability in a Rankine vortex with axial flow. <i>Physics of Fluids</i> , 2005, 17, 017101-017101-5.	1.6	18
45	Shear instability in a stratified fluid when shear and stratification are not aligned. <i>Journal of Fluid Mechanics</i> , 2011, 685, 191-201.	1.4	18
46	Inviscid instability of a stably stratified compressible boundary layer on an inclined surface. <i>Journal of Fluid Mechanics</i> , 2012, 694, 524-539.	1.4	18
47	Long- and short-wave instabilities in helical vortices. <i>Journal of Physics: Conference Series</i> , 2014, 524, 012154.	0.3	16
48	Numerical stability analysis of a vortex ring with swirl. <i>Journal of Fluid Mechanics</i> , 2019, 878, 5-36.	1.4	16
49	Nonlinear dynamics of the elliptic instability. <i>Journal of Fluid Mechanics</i> , 2010, 646, 471-480.	1.4	15
50	Internal structure of vortex rings and helical vortices. <i>Journal of Fluid Mechanics</i> , 2015, 785, 219-247.	1.4	15
51	Instability of a boundary layer flow on a vertical wall in a stably stratified fluid. <i>Journal of Fluid Mechanics</i> , 2016, 795, 262-277.	1.4	15
52	Three-Dimensional Temporal Spectrum of Stretched Vortices. <i>Physical Review Letters</i> , 1997, 78, 2567-2569.	2.9	13
53	Capillary jet breakup by noise amplification. <i>Journal of Fluid Mechanics</i> , 2017, 810, 281-306.	1.4	13
54	Internal shear layers from librating objects. <i>Journal of Fluid Mechanics</i> , 2017, 826, 653-675.	1.4	12

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55	Viscous and inviscid centre modes in the linear stability of vortices: the vicinity of the neutral curves. <i>Journal of Fluid Mechanics</i> , 2008, 603, 1-38.	1.4	11
56	Instability of a vertical columnar vortex in a stratified fluid. <i>Experiments in Fluids</i> , 2010, 49, 673-681.	1.1	11
57	Wave field and zonal flow of a librating disk. <i>Journal of Fluid Mechanics</i> , 2015, 782, 178-208.	1.4	10
58	Elliptical instability in rotating cylinders: liquid metal experiments under imposed magnetic field. <i>Journal of Fluid Mechanics</i> , 2010, 661, 130-158.	1.4	9
59	Generalized helical vortex pairs. <i>Journal of Fluid Mechanics</i> , 2019, 865, 523-545.	1.4	9
60	Stretching effects on the three-dimensional stability of vortices with axial flow. <i>Journal of Fluid Mechanics</i> , 2002, 454, 419-442.	1.4	8
61	Forced dynamics of a short viscous liquid bridge. <i>Journal of Fluid Mechanics</i> , 2014, 761, 220-240.	1.4	8
62	Viscous structure of plane waves in spatially developing shear flows. <i>Physics of Fluids</i> , 1995, 7, 1337-1347.	1.6	7
63	Response of a stratified boundary layer on a tilted wall to surface undulations. <i>Journal of Fluid Mechanics</i> , 2014, 751, 663-684.	1.4	7
64	Instability of vertically stratified horizontal plane Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2021, 907, .	1.4	7
65	Internal shear layers in librating spherical shells: the case of periodic characteristic paths. <i>Journal of Fluid Mechanics</i> , 2022, 939, .	1.4	7
66	Spatio-temporal development of the pairing instability in an infinite array of vortex rings. <i>Fluid Dynamics Research</i> , 2014, 46, 061405.	0.6	6
67	Reflection of oscillating internal shear layers: nonlinear corrections. <i>Journal of Fluid Mechanics</i> , 2020, 899, .	1.4	6
68	Acoustic near field of a transonic instability wave packet. <i>Journal of Fluid Mechanics</i> , 2007, 577, 1-23.	1.4	5
69	Structure and stability of Joukowski's rotor wake model. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	5
70	Modal growth and non-modal growth in a stretched shear layer. <i>European Journal of Mechanics, B/Fluids</i> , 2003, 22, 411-430.	1.2	4
71	Relationship between corotating vortex-pair equilibria and a single vortex in an external deformation field. <i>Physics of Fluids</i> , 2005, 17, 074103.	1.6	4
72	Self-similar impulsive capillary waves on a ligament. <i>Physics of Fluids</i> , 2015, 27, .	1.6	4

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73	A strongly-coupled model for flexible rotors. <i>Journal of Fluids and Structures</i> , 2019, 89, 219-231.	1.5	4
74	Zonal flow in a resonant precessing cylinder. <i>Journal of Fluid Mechanics</i> , 2021, 923, .	1.4	4
75	Magnetic field induced by elliptical instability in a rotating tidally-distorted sphere. <i>Journal of Physics: Conference Series</i> , 2005, 14, 30-34.	0.3	3
76	Viscous ring modes in vortices with axial jet. <i>Theoretical and Computational Fluid Dynamics</i> , 2010, 24, 349-361.	0.9	3
77	Spatio-temporal development of the pairing instability in helical vortices. , 2011, , .		2
78	Closely spaced corotating helical vortices: General solutions. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	2
79	Fluid-structure interactions of a circular cylinder in a stratified fluid. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	1.4	1
80	Instabilities of a columnar vortex in a stratified fluid. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2010, , 207-215.	0.1	1
81	Note on "Multi-frequency Craik-Criminale solutions of the Navier-Stokes equations" by B. R. Fabijonas and D. D. Holm. <i>Journal of Fluid Mechanics</i> , 2006, 550, 43.	1.4	0
82	Joukowski's wake model for tip-splitting rotors. <i>Journal of Physics: Conference Series</i> , 2021, 1934, 012005.	0.3	0
83	Viscous ring modes in vortices with axial jet. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2009, , 365-377.	0.1	0