

Carlo Cossu

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,760
citations

186265

28
h-index

168389

53
g-index

62
all docs

62
docs citations

62
times ranked

1096
citing authors

#	ARTICLE	IF	CITATIONS
1	Delaying Transition to Turbulence by a Passive Mechanism. <i>Physical Review Letters</i> , 2006, 96, 064501.	7.8	199
2	Experimental and theoretical investigation of the nonmodal growth of steady streaks in a flat plate boundary layer. <i>Physics of Fluids</i> , 2004, 16, 3627-3638.	4.0	166
3	Linear non-normal energy amplification of harmonic and stochastic forcing in the turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2010, 664, 51-73.	3.4	155
4	Stabilization of Tollmien-Schlichting waves by finite amplitude optimal streaks in the Blasius boundary layer. <i>Physics of Fluids</i> , 2002, 14, L57-L60.	4.0	151
5	Optimal transient growth and very large-scale structures in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2009, 619, 79-94.	3.4	149
6	A note on optimal transient growth in turbulent channel flows. <i>Physics of Fluids</i> , 2009, 21, .	4.0	142
7	On Tollmien-Schlichting-like waves in streaky boundary layers. <i>European Journal of Mechanics, B/Fluids</i> , 2004, 23, 815-833.	2.5	136
8	Experimental study of the stabilization of Tollmien-Schlichting waves by finite amplitude streaks. <i>Physics of Fluids</i> , 2005, 17, 054110.	4.0	130
9	Self-Sustained Process at Large Scales in Turbulent Channel Flow. <i>Physical Review Letters</i> , 2010, 105, 044505.	7.8	130
10	Amplification of coherent streaks in the turbulent Couette flow: an input-output analysis at low Reynolds number. <i>Journal of Fluid Mechanics</i> , 2010, 643, 333-348.	3.4	108
11	Global bifurcations to subcritical magnetorotational dynamo action in Keplerian shear flow. <i>Journal of Fluid Mechanics</i> , 2013, 731, 1-45.	3.4	95
12	Drag reduction of a 3D bluff body using coherent streamwise streaks. <i>Experiments in Fluids</i> , 2010, 49, 1085-1094.	2.4	92
13	Global Measures of Local Convective Instabilities. <i>Physical Review Letters</i> , 1997, 78, 4387-4390.	7.8	84
14	A note on the stability of slip channel flows. <i>Physics of Fluids</i> , 2005, 17, 088106.	4.0	78
15	On the convectively unstable nature of optimal streaks in boundary layers. <i>Journal of Fluid Mechanics</i> , 2003, 485, 221-242.	3.4	65
16	Self-sustained processes in the logarithmic layer of turbulent channel flows. <i>Physics of Fluids</i> , 2011, 23, .	4.0	63
17	On the relevance of Reynolds stresses in resolvent analyses of turbulent wall-bounded flows. <i>Journal of Fluid Mechanics</i> , 2019, 867, 969-984.	3.4	60
18	Self-adaptation and viscous selection in concentrated two-dimensional vortex dipoles. <i>Physics of Fluids</i> , 2000, 12, 245-248.	4.0	57

#	ARTICLE	IF	CITATIONS
19	ON THE INSTABILITY OF A SPRING-MOUNTED CIRCULAR CYLINDER IN A VISCOUS FLOW AT LOW REYNOLDS NUMBERS. <i>Journal of Fluids and Structures</i> , 2000, 14, 183-196.	3.4	54
20	On the self-sustained nature of large-scale motions in turbulent Couette flow. <i>Journal of Fluid Mechanics</i> , 2015, 782, 515-540.	3.4	43
21	Self-sustaining processes at all scales in wall-bounded turbulent shear flows. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160088.	3.4	41
22	Invariant solutions of minimal large-scale structures in turbulent channel flow for $up\hat{A}to\hat{A}1000$. <i>Journal of Fluid Mechanics</i> , 2016, 802, .	3.4	40
23	On self-sustaining processes in Rayleigh-stable rotating plane Couette flows and subcritical transition to turbulence in accretion disks. <i>Astronomy and Astrophysics</i> , 2007, 463, 817-832.	5.1	36
24	Periodic magnetorotational dynamo action as a prototype of nonlinear magnetic-field generation in shear flows. <i>Physical Review E</i> , 2011, 84, 036321.	2.1	35
25	On the stability of large-scale streaks in turbulent Couette and Poiseuille flows. <i>Comptes Rendus - Mecanique</i> , 2011, 339, 1-5.	2.1	33
26	Secondary threshold amplitudes for sinuous streak breakdown. <i>Physics of Fluids</i> , 2011, 23, .	4.0	33
27	Optimally amplified large-scale streaks and drag reduction in turbulent pipe flow. <i>Physical Review E</i> , 2010, 82, 036321.	2.1	31
28	Spatio-temporal development of the long and short-wave vortex-pair instabilities. <i>Physics of Fluids</i> , 2000, 12, 1247-1250.	4.0	30
29	Subcritical dynamos in shear flows. <i>Astronomische Nachrichten</i> , 2008, 329, 750-761.	1.2	26
30	Dissipative effects on the sustainment of a magnetorotational dynamo in Keplerian shear flow. <i>Astronomy and Astrophysics</i> , 2015, 575, A14.	5.1	23
31	Spherical cap bubbles with a toroidal bubbly wake. <i>Physics of Fluids</i> , 2008, 20, .	4.0	22
32	Stabilizing effect of optimally amplified streaks in parallel wakes. <i>Journal of Fluid Mechanics</i> , 2014, 739, 37-56.	3.4	20
33	Forcing large-scale coherent streaks in a zero-pressure-gradient turbulent boundary layer. <i>Journal of Turbulence</i> , 2010, 11, N25.	1.4	18
34	Optimal streaks in the circular cylinder wake and suppression of the global instability. <i>Journal of Fluid Mechanics</i> , 2014, 752, 572-588.	3.4	18
35	An optimality condition on the minimum energy threshold in subcritical instabilities. <i>Comptes Rendus - Mecanique</i> , 2005, 333, 331-336.	2.1	17
36	Influence of optimally amplified streamwise streaks on the Kelvin-Helmholtz instability. <i>Journal of Fluid Mechanics</i> , 2018, 838, 478-500.	3.4	17

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37	Optimal secondary energy growth in a plane channel flow. <i>Physics of Fluids</i> , 2007, 19, 058107.	4.0	16
38	Wake redirection at higher axial induction. <i>Wind Energy Science</i> , 2021, 6, 377-388.	3.3	15
39	Maximum Spatial Growth of Görtler Vortices. <i>Flow, Turbulence and Combustion</i> , 2000, 65, 369-392.	2.6	14
40	Optimal perturbations of non-parallel wakes and their stabilizing effect on the global instability. <i>Physics of Fluids</i> , 2014, 26, .	4.0	14
41	On the Convective and Absolute Nature of Instabilities in Finite Difference Numerical Simulations of Open Flows. <i>Journal of Computational Physics</i> , 1998, 144, 98-108.	3.8	13
42	An Introduction to Optimal Control. <i>Applied Mechanics Reviews</i> , 2014, 66, .	10.1	12
43	Travelling-wave solutions bifurcating from relative periodic orbits in plane Poiseuille flow. <i>Comptes Rendus - Mecanique</i> , 2016, 344, 448-455.	2.1	12
44	Replacing wakes with streaks in wind turbine arrays. <i>Wind Energy</i> , 2021, 24, 345-356.	4.2	11
45	Growth and instability of a laminar plume in a strongly stratified environment. <i>Journal of Fluid Mechanics</i> , 2011, 671, 184-206.	3.4	8
46	Relative periodic orbits in plane Poiseuille flow. <i>Comptes Rendus - Mecanique</i> , 2014, 342, 485-489.	2.1	8
47	A vorticity-only formulation and a low-order asymptotic expansion solution near Hopf bifurcation. <i>Computational Mechanics</i> , 1997, 20, 229-241.	4.0	7
48	Adding streamwise streaks in the plane Poiseuille flow. <i>Comptes Rendus - Mecanique</i> , 2009, 337, 179-183.	2.1	7
49	Evaluation of tilt control for wind-turbine arrays in the atmospheric boundary layer. <i>Wind Energy Science</i> , 2021, 6, 663-675.	3.3	7
50	Optimal streaks in the wake of a blunt-based axisymmetric bluff body and their influence on vortex shedding. <i>Comptes Rendus - Mecanique</i> , 2017, 345, 378-385.	2.1	4
51	EXPERIMENTAL STUDY OF THE STABILIZATION OF TOLLMIEN-SCHLICHTING WAVES BY FINITE AMPLITUDE STREAKS. , 2006, , 299-304.		3
52	Exact Invariant Solutions for Coherent Turbulent Motions in Couette and Poiseuille Flows. <i>Procedia IUTAM</i> , 2017, 20, 94-98.	1.2	2
53	NUMERICAL STUDIES OF STREAK INSTABILITY IN BOUNDARY LAYERS. <i>Fluid Mechanics and Its Applications</i> , 2006, , 121-126.	0.2	2
54	Optimal amplification of large scale streaks in the turbulent Couette flow. <i>Springer Proceedings in Physics</i> , 2009, , 645-648.	0.2	2

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55	Experimental Analysis of Transition Delay by Means of Roughness Elements. , 2006, , .		1
56	Non-Linear Optimal Perturbations in Subcritical Instabilities. , 2005, , 251-266.		1
57	Secondary optimal growth and subcritical transition in the plane Poiseuille flow. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 129-134.	0.2	1
58	Absolute/Convective Instabilities and Spatial Growth in a Vortex Pair. , 2000, , 162-172.		1
59	Coherent streaky structures and optimal perturbations of turbulent boundary layers. Springer Proceedings in Physics, 2009, , 573-576.	0.2	0
60	Optimal secondary growth and transition in a plane channel flow. , 2007, , 136-137.		0