Carlo F Barenghi

List of Publications by Year
in descending order

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67	2,372	236925	206112
papers	citations	25 h-index	48 g-index

68	68	68	1018
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sound-ring radiation of expanding vortex clusters. Physical Review Research, 2022, 4, .	3.6	4
2	Classical and quantum vortex leapfrogging in two-dimensional channels. Journal of Fluid Mechanics, 2021, 912, .	3.4	0
3	A new self-consistent approach of quantum turbulence in superfluid helium. European Physical Journal Plus, 2020, 135, 1.	2.6	20
4	Crossover from interaction to driven regimes in quantum vortex reconnections. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12204-12211.	7.1	29
5	Decay of homogeneous two-dimensional quantum turbulence. Physical Review A, 2018, 97, .	2.5	17
6	Large-scale normal fluid circulation in helium superflows. Physical Review B, 2017, 95, .	3.2	4
7	Vortex Reconnections and Rebounds in Trapped Atomic Bose-Einstein Condensates. Physical Review X, 2017, 7, .	8.9	53
8	Quantum turbulence in trapped atomic Boseâ€“Einstein condensates. Physics Reports, 2016, 622, 1-52.	25.6	107
9	Vortices and Rotation. SpringerBriefs in Physics, 2016, , 79-110.	0.7	0
10	Coupled normal fluid and superfluid profiles of turbulent helium II in channels. Physical Review B, 2015, 92, .	3.2	16
11	Experimental, numerical, and analytical velocity spectra in turbulent quantum fluid. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4683-4690.	7.1	80
12	Introduction to quantum turbulence. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4647-4652.	7.1	235
13	Acceleration statistics in thermally driven superfluid turbulence. Physical Review E, 2014, 89, 033006.	2.1	3
14	Three-dimensional inverse energy transfer induced by vortex reconnections. Physical Review E, 2014, 89, 013002.	2.1	21
15	Vortex Knots Dynamics in Euler Fluids. Procedia IUTAM, 2013, 7, 29-38.	1.2	5
16	A Dynamical Self-Consistent Finite-Temperature Kinetic Theory: The ZNG Scheme. Cold Atoms, 2013, , 93-105.	0.3	0
17	Velocity distributions of tracer particles in thermal counterflow in superfluid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>4</mml:mn></mml:msup></mml:math>He. Physical Review B, 2013, 87, .	3.2	17
18	Vortex-Density Fluctuations, Energy Spectra, and Vortical Regions in Superfluid Turbulence. Physical Review Letters, 2012, 109, 205304.	7.8	75

#	Article	IF	Citations
19	Creation and characterization of vortex clusters in atomic Bose-Einstein condensates. Physical Review A, 2012, 86, .	2.5	50
20	Vortex knots in a Bose-Einstein condensate. Physical Review E, 2012, 85, 036306.	2.1	76
21	Slowing down of vortex rings in Bose-Einstein condensates. Physical Review A, 2011, 83, .	2.5	16
22	Saturation of decaying counterflow turbulence in helium II. Physical Review B, 2010, 82, .	3.2	7
23	Motion of vortex ring with tracer particles in superfluid helium. Physical Review B, 2009, 80, .	3.2	13
24	Visualisation of Quantum Turbulence. Progress in Low Temperature Physics, 2009, , 247-303.	0.2	14
25	Disordered vortex arrays in a two-dimensional condensate. Geophysical and Astrophysical Fluid Dynamics, 2009, 103, 269-278.	1.2	6
26	Vortex Dynamics in Trapped Bose-Einstein Condensate. Journal of Low Temperature Physics, 2008, 152, 122-135.	1.4	26
27	Interactions between particles and quantized vortices in superfluid helium. Physical Review B, 2008, 77, .	3.2	46
28	Introduction to quantised vortices and turbulence. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2008, , 1-44.	0.6	1
29	Collision of a tracer particle and a quantized vortex in superfluid helium: Self-consistent calculations. Physical Review B, 2007, 75, .	3.2	26
30	Knots and Unknots in Superfluid Turbulence. Milan Journal of Mathematics, 2007, 75, 177-196.	1.1	12
31	Hydromagnetic Taylorâ€“Couette flow at very small aspect ratio. Journal of Fluid Mechanics, 2006, 550, 27.	3.4	9
32	Numerical Calculation of the Interaction of Superfluid Vortices and a Rigid Sphere. Journal of Low Temperature Physics, 2006, 144, 121-134.	1.4	12
33	Evolution of vortex rings after the collapse of ultrasound bubbles in superfluids. Journal of Low Temperature Physics, 2005, 138, 481-486.	1.4	1
34	Torsional Oscillations of a Rotating Column of 3He-B. Journal of Low Temperature Physics, 2005, 138, 577-582.	1.4	0
35	Instability of vortex array and transitions to turbulence in rotating helium II. Physical Review B, 2004, 69, .	3.2	43
36	Two-Particle Dispersion in Superfluid Turbulence. Journal of Low Temperature Physics, 2004, 134, 483-488.	1.4	1

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37	Scaling Laws of Vortex Reconnections. Journal of Low Temperature Physics, 2004, 136, 281-293.	1.4	28
38	Superfluid Couette flow in an enclosed annulus. Theoretical and Computational Fluid Dynamics, 2004, 18, 183-196.	2.2	14
39	Turbulent dissipation near absolute zero. European Journal of Mechanics, B/Fluids, 2004, 23, 415-425.	2.5	4
40	Transition from Ekman flow to Taylor vortex flow in superfluid helium. Journal of Fluid Mechanics, 2004, 508, 319-331.	3.4	4
41	Reversing and non-reversing modulated TaylorCouette flow. Journal of Fluid Mechanics, 2003, 487, 367-376.	3.4	18
42	Rotating Superfluid Turbulence. Physical Review Letters, 2003, 90, 205301.	7.8	66
43	Evaporation of a Packet of Quantized Vorticity. Physical Review Letters, 2002, 89, 155302.	7.8	44
44	Polarization of Superfluid Turbulence. Physical Review Letters, 2002, 89, 275301.	7.8	42
45	Linear stability of laminar plane Poiseuille flow of helium II under a nonuniform mutual friction forcing. Physics of Fluids, 2001, 13, 983-990.	4.0	9
46	Numerical Methods for Coupled Normal-Fluid and Superfluid Flows in Helium II. , 2001, , 162-176.		5
47	Fractal Dimension of Superfluid Turbulence. Physical Review Letters, 2001, 87, 155301.	7.8	41
48	Introduction to Superfluid Vortices and Turbulence. , 2001, , 3-14.		7
49	Turbulence in superfluids. , 2001, , 77-92.		0
50	The anomalous motion of superfluid helium in a rotating cavity. Journal of Fluid Mechanics, 2000, 406, 199-219.	3.4	17
51	Can Superfluid Vortex Lines Excite Normal Fluid Turbulence in 4He?. Journal of Low Temperature Physics, 2000, 121, 377-386.	1.4	5
52	Local normal-fluid helium II flow due to mutual friction interaction with the superfluid. Physical Review B, 2000, 62, 3409-3415.	3.2	25
53	Triple Vortex Ring Structure in Superfluid Helium II. Science, 2000, 290, 777-779.	12.6	57
54	Self-consistent decay of superfluid turbulence. Physical Review B, 1999, 60, 1252-1260.	3.2	15

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55	Classical aspects of quantum turbulence. Journal of Physics Condensed Matter, 1999, 11, 7751-7759.	1.8	9
56	Evolution of vortex knots. Journal of Fluid Mechanics, 1999, 391, 29-44.	3.4	78
57	The Observed Properties of Liquid Helium at the Saturated Vapor Pressure. Journal of Physical and Chemical Reference Data, 1998, 27, 1217-1274.	4.2	467
58	Transition to Normal Fluid Turbulence in Helium II. Physical Review Letters, 1998, 80, 4181-4184.	7.8	87
59	Superfluid vortex lines in a model of turbulent flow. Physics of Fluids, 1997, 9, 2631-2643.	4.0	101
60	Vortex lines and transitions in superfluid hydrodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1997, 355, 2025-2034.	3.4	4
61	Nonlinear taylor-couette flow of helium II. European Physical Journal D, 1996, 46, 75-76.	0.4	0
62	Emerging issues in helium turbulence. Journal of Low Temperature Physics, 1995, 100, 385-413.	1.4	35
63	Nonlinear Taylorâ€“Couette flow of helium II. Journal of Fluid Mechanics, 1995, 283, 329-340.	3.4	43
64	High resolution numerical dynamos in the limit of a thin disk galaxy. Geophysical and Astrophysical Fluid Dynamics, 1994, 76, 265-281.	1.2	9
65	Nonlinear planetary dynamos in a rotating spherical shell. III. Î±2Ï‰ models and the geodynamo. Geophysical and Astrophysical Fluid Dynamics, 1993, 71, 163-185.	1.2	14
66	Nonlinear planetary dynamos in a rotating spherical shell. II. The post-Taylor equilibration for Î±2-dynamos. Geophysical and Astrophysical Fluid Dynamics, 1992, 67, 27-36.	1.2	15
67	Rotation of a Tangle of Quantized Vortex Lines in He II. Physical Review Letters, 1983, 50, 190-193.	7.8	64