

Carlo F Barenghi

List of Publications by Year in descending order

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67
papers

2,372
citations

236925

25
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48
g-index

68
all docs

68
docs citations

68
times ranked

1018
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Introduction to quantum turbulence. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4647-4652.	7.1	235
3	Quantum turbulence in trapped atomic Bose-Einstein condensates. Physics Reports, 2016, 622, 1-52.	25.6	107
4	Superfluid vortex lines in a model of turbulent flow. Physics of Fluids, 1997, 9, 2631-2643.	4.0	101
5	Transition to Normal Fluid Turbulence in Helium II. Physical Review Letters, 1998, 80, 4181-4184.	7.8	87
6	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
7	Evolution of vortex knots. Journal of Fluid Mechanics, 1999, 391, 29-44.	3.4	78
8	Vortex knots in a Bose-Einstein condensate. Physical Review E, 2012, 85, 036306.	2.1	76
9	Vortex-Density Fluctuations, Energy Spectra, and Vortical Regions in Superfluid Turbulence. Physical Review Letters, 2012, 109, 205304.	7.8	75
10	Rotating Superfluid Turbulence. Physical Review Letters, 2003, 90, 205301.	7.8	66
11	Rotation of a Tangle of Quantized Vortex Lines in He II. Physical Review Letters, 1983, 50, 190-193.	7.8	64
12	Triple Vortex Ring Structure in Superfluid Helium II. Science, 2000, 290, 777-779.	12.6	57
13	Vortex Reconnections and Rebounds in Trapped Atomic Bose-Einstein Condensates. Physical Review X, 2017, 7, .	8.9	53
14	Creation and characterization of vortex clusters in atomic Bose-Einstein condensates. Physical Review A, 2012, 86, .	2.5	50
15	Interactions between particles and quantized vortices in superfluid helium. Physical Review B, 2008, 77, .	3.2	46
16	Evaporation of a Packet of Quantized Vorticity. Physical Review Letters, 2002, 89, 155302.	7.8	44
17	Nonlinear Taylor-Couette flow of helium II. Journal of Fluid Mechanics, 1995, 283, 329-340.	3.4	43
18	Instability of vortex array and transitions to turbulence in rotating helium II. Physical Review B, 2004, 69, .	3.2	43

#	ARTICLE	IF	CITATIONS
19	Polarization of Superfluid Turbulence. Physical Review Letters, 2002, 89, 275301.	7.8	42
20	Fractal Dimension of Superfluid Turbulence. Physical Review Letters, 2001, 87, 155301.	7.8	41
21	Emerging issues in helium turbulence. Journal of Low Temperature Physics, 1995, 100, 385-413.	1.4	35
22	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
23	Scaling Laws of Vortex Reconnections. Journal of Low Temperature Physics, 2004, 136, 281-293.	1.4	28
24	Collision of a tracer particle and a quantized vortex in superfluid helium: Self-consistent calculations. Physical Review B, 2007, 75, .	3.2	26
25	Vortex Dynamics in Trapped Bose-Einstein Condensate. Journal of Low Temperature Physics, 2008, 152, 122-135.	1.4	26
26	Local normal-fluid helium II flow due to mutual friction interaction with the superfluid. Physical Review B, 2000, 62, 3409-3415.	3.2	25
27	Three-dimensional inverse energy transfer induced by vortex reconnections. Physical Review E, 2014, 89, 013002.	2.1	21
28	A new self-consistent approach of quantum turbulence in superfluid helium. European Physical Journal Plus, 2020, 135, 1.	2.6	20
29	Reversing and non-reversing modulated TaylorCouette flow. Journal of Fluid Mechanics, 2003, 487, 367-376.	3.4	18
30	The anomalous motion of superfluid helium in a rotating cavity. Journal of Fluid Mechanics, 2000, 406, 199-219.	3.4	17
31	Velocity distributions of tracer particles in thermal counterflow in superfluid ^4He . Physical Review B, 2013, 87, .	3.2	17
32	Decay of homogeneous two-dimensional quantum turbulence. Physical Review A, 2018, 97, .	2.5	17
33	Slowing down of vortex rings in Bose-Einstein condensates. Physical Review A, 2011, 83, .	2.5	16
34	Coupled normal fluid and superfluid profiles of turbulent helium II in channels. Physical Review B, 2015, 92, .	3.2	16
35	Nonlinear planetary dynamos in a rotating spherical shell. II. The post-Taylor equilibration for $\hat{\lambda} \geq 2$ -dynamos. Geophysical and Astrophysical Fluid Dynamics, 1992, 67, 27-36.	1.2	15
36	Self-consistent decay of superfluid turbulence. Physical Review B, 1999, 60, 1252-1260.	3.2	15

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37	Nonlinear planetary dynamos in a rotating spherical shell. III. $\hat{\alpha}$ - $\hat{\beta}$ models and the geodynamo. Geophysical and Astrophysical Fluid Dynamics, 1993, 71, 163-185.	1.2	14
38	Superfluid Couette flow in an enclosed annulus. Theoretical and Computational Fluid Dynamics, 2004, 18, 183-196.	2.2	14
39	Visualisation of Quantum Turbulence. Progress in Low Temperature Physics, 2009, , 247-303.	0.2	14
40	Motion of vortex ring with tracer particles in superfluid helium. Physical Review B, 2009, 80, .	3.2	13
41	Numerical Calculation of the Interaction of Superfluid Vortices and a Rigid Sphere. Journal of Low Temperature Physics, 2006, 144, 121-134.	1.4	12
42	Knots and Unknots in Superfluid Turbulence. Milan Journal of Mathematics, 2007, 75, 177-196.	1.1	12
43	High resolution numerical dynamos in the limit of a thin disk galaxy. Geophysical and Astrophysical Fluid Dynamics, 1994, 76, 265-281.	1.2	9
44	Classical aspects of quantum turbulence. Journal of Physics Condensed Matter, 1999, 11, 7751-7759.	1.8	9
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	Hydromagnetic Taylor-Couette flow at very small aspect ratio. Journal of Fluid Mechanics, 2006, 550, 27.	3.4	9
47	Saturation of decaying counterflow turbulence in helium II. Physical Review B, 2010, 82, .	3.2	7
48	Introduction to Superfluid Vortices and Turbulence. , 2001, , 3-14.		7
49	Disordered vortex arrays in a two-dimensional condensate. Geophysical and Astrophysical Fluid Dynamics, 2009, 103, 269-278.	1.2	6
50	Can Superfluid Vortex Lines Excite Normal Fluid Turbulence in 4He?. Journal of Low Temperature Physics, 2000, 121, 377-386.	1.4	5
51	Numerical Methods for Coupled Normal-Fluid and Superfluid Flows in Helium II. , 2001, , 162-176.		5
52	Vortex Knots Dynamics in Euler Fluids. Procedia IUTAM, 2013, 7, 29-38.	1.2	5
53	Vortex lines and transitions in superfluid hydrodynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1997, 355, 2025-2034.	3.4	4
54	Turbulent dissipation near absolute zero. European Journal of Mechanics, B/Fluids, 2004, 23, 415-425.	2.5	4

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55	Transition from Ekman flow to Taylor vortex flow in superfluid helium. Journal of Fluid Mechanics, 2004, 508, 319-331.	3.4	4
56	Large-scale normal fluid circulation in helium superflows. Physical Review B, 2017, 95, .	3.2	4
57	Sound-ring radiation of expanding vortex clusters. Physical Review Research, 2022, 4, .	3.6	4
58	Acceleration statistics in thermally driven superfluid turbulence. Physical Review E, 2014, 89, 033006.	2.1	3
59	Two-Particle Dispersion in Superfluid Turbulence. Journal of Low Temperature Physics, 2004, 134, 483-488.	1.4	1
60	Evolution of vortex rings after the collapse of ultrasound bubbles in superfluids. Journal of Low Temperature Physics, 2005, 138, 481-486.	1.4	1
61	Introduction to quantised vortices and turbulence. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2008, , 1-44.	0.6	1
62	Nonlinear taylor-couette flow of helium II. European Physical Journal D, 1996, 46, 75-76.	0.4	0
63	Torsional Oscillations of a Rotating Column of $^3\text{He-B}$. Journal of Low Temperature Physics, 2005, 138, 577-582.	1.4	0
64	A Dynamical Self-Consistent Finite-Temperature Kinetic Theory: The ZNG Scheme. Cold Atoms, 2013, , 93-105.	0.3	0
65	Vortices and Rotation. SpringerBriefs in Physics, 2016, , 79-110.	0.7	0
66	Classical and quantum vortex leapfrogging in two-dimensional channels. Journal of Fluid Mechanics, 2021, 912, .	3.4	0
67	Turbulence in superfluids. , 2001, , 77-92.		0