Philippe-E Roche

List of Publications by Year
in descending order

47 papers	1,347 citations	361413 20 h-index	330143 37 g-index
47 all docs	47 docs citations	47 times ranked	723 citing authors

#	Article	IF	Citations
1	Observation of the12power law in Rayleigh-BÃ©nard convection. Physical Review E, 2001, 63, 045303.	2.1	98
2	Current Fluctuations in the One-Dimensional Symmetric Exclusion Process with Open Boundaries. Journal of Statistical Physics, 2004, 115, 717-748.	1.2	98
3	On the triggering of the Ultimate Regime of convection. New Journal of Physics, 2010, 12, 085014.	2.9	92
4	Turbulent velocity spectra in superfluid flows. Physics of Fluids, 2010, 22, .	4.0	90
5	Thickness and low-temperature conductivity of DNA molecules. Applied Physics Letters, 2004, 84, 1007-1009.	3.3	87
6	Vortex density spectrum of quantum turbulence. Europhysics Letters, 2007, 77, 66002.	2.0	81
7	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
8	Side wall effects in Rayleigh BÃ©nard experiments. European Physical Journal B, 2001, 24, 405-408.	1.5	72
9	Prandtl and Rayleigh numbers dependences in Rayleigh-BÃ©nard convection. Europhysics Letters, 2002, 58, 693-698.	2.0	68
10	Energy cascade and the four-fifths law in superfluid turbulence. Europhysics Letters, 2012, 97, 34006.	2.0	57
11	Quantum turbulence at finite temperature: The two-fluids cascade. Europhysics Letters, 2009, 87, 54006.	2.0	45
12	Very low shot noise in carbon nanotubes. European Physical Journal B, 2002, 28, 217-222.	1.5	42
13	Vortex spectrum in superfluid turbulence: Interpretation of a recent experiment. Europhysics Letters, 2008, 81, 36002.	2.0	39
14	Superfluid high REynolds von KÃ¡rmÃ¡n experiment. Review of Scientific Instruments, 2014, 85, 103908.	1.3	38
15	Mesoscale equipartition of kinetic energy in quantum turbulence. Europhysics Letters, 2011, 94, 24001.	2.0	32
16	Effective viscosity in quantum turbulence: A steady-state approach. Europhysics Letters, 2014, 106, 24006.	2.0	30
17	Intermittency of quantum turbulence with superfluid fractions from 0% to 96%. Physics of Fluids, 2017, 29, .	4.0	29
18	Heat Transfer in Turbulent Rayleighâ€“BÃ©nard Convection Below the Ultimate Regime. Journal of Low Temperature Physics, 2004, 134, 1011-1042.	1.4	26

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19	The ultimate state of convection: a unifying picture of very high Rayleigh numbers experiments. New Journal of Physics, 2020, 22, 073056.	2.9	26
20	Hot-wire anemometry for superfluid turbulent coflows. Review of Scientific Instruments, 2015, 86, 025007.	1.3	21
21	Ultimate regime of convection: Robustness to poor thermal reservoirs. Physics of Fluids, 2005, 17, 115107.	4.0	20
22	Investigation of intermittency in superfluid turbulence. Journal of Physics: Conference Series, 2011, 318, 042014.	0.4	20
23	Investigation of the small-scale statistics of turbulence in the Modane S1MA wind tunnel. CEAS Aeronautical Journal, 2018, 9, 269-281.	1.7	20
24	Mesoscopic full counting statistics and exclusion models. European Physical Journal B, 2005, 43, 529-541.	1.5	19
25	Evidence of a boundary layer instability at very high Rayleigh number. Europhysics Letters, 2008, 83, 24005.	2.0	19
26	Cantilever anemometer based on a superconducting micro-resonator: Application to superfluid turbulence. Review of Scientific Instruments, 2012, 83, 125002.	1.3	17
27	Transition on local temperature fluctuations in highly turbulent convection. Europhysics Letters, 2009, 87, 44006.	2.0	13
28	Shot-noise statistics in diffusive conductors. European Physical Journal B, 2002, 27, 393-398.	1.5	10
29	Disproportionate entrance length in superfluid flows and the puzzle of counterflow instabilities. Physical Review Fluids, 2017, 2, .	2.5	10
30	Detection of vortex coherent structures in superfluid turbulence. Europhysics Letters, 2017, 118, 14005.	2.0	9
31	Nano-shaped hot-wire for ultra-high resolution anemometry in cryogenic helium. Review of Scientific Instruments, 2019, 90, .	1.3	5
32	Local measurement of vortex statistics in quantum turbulence. Europhysics Letters, 2021, 134, 46002.	2.0	5
33	Experimental signature of quantum turbulence in velocity spectra?. New Journal of Physics, 2021, 23, 063005.	2.9	5
34	A local sensor for joint temperature and velocity measurements in turbulent flows. Review of Scientific Instruments, 2018, 89, 015005.	1.3	4
35	Shot noise in carbon nanotubes. , 2003, , .		3
36	TSF EXPERIMENT FOR COMPARISON OF HIGH REYNOLDS NUMBER TURBULENCE IN BOTH HE I AND HE II: FIRST RESULTS. AIP Conference Proceedings, 2008, , .	0.4	3

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37	Cooling with a subsonic flow of quantum fluid. Physical Review B, 2021, 103, .	3.2	3
38	Investigation of properties of superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math> turbulence using a hot-wire signal. Physical Review Fluids, 2021, 6, .	2.5	3
39	Ultimate regime of convection: search for a hidden triggering parameter. , 2007, , 645-647.		3
40	Micro-Cantilever Anemometer for Cryogenic Helium. Journal of Physics: Conference Series, 2011, 318, 092030.	0.4	2
41	The ultimate regime of convection over uneven plates. Journal of Physics: Conference Series, 2011, 318, 052044.	0.4	1
42	Vorticity scattering measurements in a superfluid inertial round jet. Journal of Physics: Conference Series, 2011, 318, 092027.	0.4	1
43	Convection at very high Rayleigh number: signature of transition from a micro-thermometer inside the flow. Springer Proceedings in Physics, 2009, , 159-162.	0.2	1
44	Kolmogorov cascade and equipartition of kinetic energy in numerical simulation of Superfluid turbulence. Journal of Physics: Conference Series, 2011, 318, 092031.	0.4	0
45	Shot noise of thermal plumes : Evidence of a boundary layer instability consistent with the onset of Kraichnanâ€™s Regime of convection. Springer Proceedings in Physics, 2009, , 521-524.	0.2	0
46	Turbulent cascade of a quantum fluid at finite temperature. Springer Proceedings in Physics, 2009, , 281-284.	0.2	0
47	Probing Vortex Density Fluctuations in Superfluid Turbulence. , 2007, , 532-534.		0