RaphaÃ«l Danchin

List of Publications by Year
in descending order

58 papers	4,176 citations	159585 30 h-index	155660 55 g-index
58 all docs	58 docs citations	58 times ranked	769 citing authors

#	Article	IF	Citations
1	On the Global Existence for the Compressible Euler–Riesz System. Journal of Mathematical Fluid Mechanics, 2022, 24, 1.	1.0	0
2	Partially dissipative one-dimensional hyperbolic systems in the critical regularity setting, and applications. Pure and Applied Analysis, 2022, 4, 85-125.	1.1	9
3	The global existence issue for the compressible Euler system with Poisson or Helmholtz couplings. Journal of Hyperbolic Differential Equations, 2021, 18, 169-193.	0.5	1
4	On the global existence for the compressible Euler–Poisson system, and the instability of static solutions. Journal of Evolution Equations, 2020, , 1.	1.1	1
5	A well-posedness result for viscous compressible fluids with only bounded density. Analysis and PDE, 2020, 13, 275-316.	1.4	8
6	The Incompressible Navier–Stokes Equations in Vacuum. Communications on Pure and Applied Mathematics, 2019, 72, 1351-1385.	3.1	41
7	Regular solutions to the fractional Euler alignment system in the Besov spaces framework. Mathematical Models and Methods in Applied Sciences, 2019, 29, 89-119.	3.3	21
8	From compressible to incompressible inhomogeneous flows in the case of large data. Tunisian Journal of Mathematics, 2019, 1, 127-149.	0.6	6
9	Fourier Analysis Methods for the Compressible Navier-Stokes Equations. , 2018, , 1843-1903.		5
10	Optimal decay estimates in the critical L^{p} L p framework for flows of compressible viscous and heat-conductive gases. Journal of Mathematical Fluid Mechanics, 2018, 20, 1641-1665.	1.0	8
11	Existence of strong solutions with critical regularity to a polytropic model for radiating flows. Annali Di Matematica Pura Ed Applicata, 2017, 196, 107-153.	1.0	3
12	On the global existence and time decay estimates in critical spaces for the Navier–Stokes–Poisson system. Mathematische Nachrichten, 2017, 290, 1939-1970.	0.8	13
13	Optimal Time-decay Estimates for the Compressible Navier–Stokes Equations in the Critical L p Framework. Archive for Rational Mechanics and Analysis, 2017, 224, 53-90.	2.4	66
14	Compressible Navier–Stokes system: Large solutions and incompressible limit. Advances in Mathematics, 2017, 320, 904-925.	1.1	37
15	Global persistence of geometrical structures for the Boussinesq equation with no diffusion. Communications in Partial Differential Equations, 2017, 42, 68-99.	2.2	19
16	The Low Mach Number Limit for a Barotropic Model of Radiative Flow. SIAM Journal on Mathematical Analysis, 2016, 48, 1025-1053.	1.9	12
17	The incompressible limit in L^p L p type critical spaces. Mathematische Annalen, 2016, 366, 1365-1402.	1.4	36
18	Fourier Analysis Methods for the Compressible Navier-Stokes Equations. , 2016, , 1-62.		8

#	Article	IF	Citations
19	On the well-posedness of the full compressible Navierâ€"Stokes system in critical Besov spaces. Journal of Differential Equations, 2015, 258, 3435-3467.	2.2	43
20	On a simplified model for radiating flows. Journal of Evolution Equations, 2014, 14, 155-195.	1.1	22
21	Inhomogeneous Navierâ€"Stokes equations in the half-space, with only bounded density. Journal of Functional Analysis, 2014, 267, 2371-2436.	1.4	29
22	A Lagrangian approach for the compressible Navier-Stokes equations. Annales De L'Institut Fourier, 2014, 64, 753-791.	0.6	55
23	Incompressible Flows with Piecewise Constant Density. Archive for Rational Mechanics and Analysis, 2013, 207, 991-1023.	2.4	60
24	New Maximal Regularity Results for the Heat Equation in Exterior Domains, and Applications. Progress in Nonlinear Differential Equations and Their Application, 2013, , 101-128.	0.9	3
25	The Oberbeckâ€"Boussinesq approximation in critical spaces. Asymptotic Analysis, 2013, 84, 61-102.	0.5	4
26	Divergence. Discrete and Continuous Dynamical Systems - Series S, 2013, 6, 1163-1172.	1.1	5
27	ON THE WELL-POSEDNESS OF THE FULL LOW MACH NUMBER LIMIT SYSTEM IN GENERAL CRITICAL BESOV SPACES. Communications in Contemporary Mathematics, 2012, 14, 1250022.	1.2	16
28	Madelung, Grossâ€"Pitaevskii and Korteweg. Nonlinearity, 2012, 25, 2843-2873.	1.4	55
29	A Lagrangian Approach for the Incompressible Navierâ€"Stokes Equations with Variable Density. Communications on Pure and Applied Mathematics, 2012, 65, 1458-1480.	3.1	106
30	The divergence equation in rough spaces. Journal of Mathematical Analysis and Applications, 2012, 386, 10-31.	1.0	9
31	A survey on Fourier analysis methods for solving the compressible Navier-Stokes equations. Science China Mathematics, 2012, 55, 245-275.	1.7	13
32	Fourier Analysis and Nonlinear Partial Differential Equations. Grundlehren Der Mathematischen Wissenschaften in Einzeldarstellungen Mit Besonderer BerÃ¼cksichtigung Der Anwendungsgebiete, 2011, , .	0.9	1,185
33	The well-posedness issue for the density-dependent Euler equations in endpoint Besov spaces. Journal Des Mathematiques Pures Et Appliquees, 2011, 96, 253-278.	1.6	25
34	GLOBAL EXISTENCE RESULTS FOR THE ANISOTROPIC BOUSSINESQ SYSTEM IN DIMENSION TWO. Mathematical Models and Methods in Applied Sciences, 2011, 21, 421-457.	3.3	156
35	A Global Existence Result for the Compressible Navierâ€"Stokes Equations in the Critical L_p Framework. Archive for Rational Mechanics and Analysis, 2010, 198, 233-271.	2.4	113
36	On the linear wave regime of the Gross-Pitaevskii equation. Journal D'Analyse Mathematique, 2010, 110, 297-338.	0.8	13

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37	On the well-posedness of the incompressible density-dependent Euler equations in the L^p framework. Journal of Differential Equations, 2010, 248, 2130-2170.	2.2	61
38	On the solvability of the compressible Navier–Stokes system in bounded domains. Nonlinearity, 2010, 23, 383-407.	1.4	13
39	Global Well-Posedness Issues for the Inviscid Boussinesq System with Yudovich's Type Data. Communications in Mathematical Physics, 2009, 290, 1-14.	2.2	137
40	A critical functional framework for the inhomogeneous Navier–Stokes equations in the half-space. Journal of Functional Analysis, 2009, 256, 881-927.	1.4	47
41	Existence and uniqueness results for the Boussinesq system with data in Lorentz spaces. Physica D: Nonlinear Phenomena, 2008, 237, 1444-1460.	2.8	74
42	Les théorèmes de Leray et de Fujita-Kato pour le système de Boussinesq partiellement visqueux. Bulletin De La Societe Mathematique De France, 2008, 136, 261-309.	0.2	87
43	UNIFORM ESTIMATES FOR TRANSPORT-DIFFUSION EQUATIONS. Journal of Hyperbolic Differential Equations, 2007, 04, 1-17.	0.5	27
44	Well-Posedness in Critical Spaces for Barotropic Viscous Fluids with Truly Not Constant Density. Communications in Partial Differential Equations, 2007, 32, 1373-1397.	2.2	78
45	On perfect fluids with bounded vorticity. Comptes Rendus Mathematique, 2007, 345, 391-394.	0.3	1
46	On the well-posedness for the Euler-Korteweg model in several space dimensions. Indiana University Mathematics Journal, 2007, 56, 1499-1579.	0.9	81
47	Density-Dependent Incompressible Fluids in Bounded Domains. Journal of Mathematical Fluid Mechanics, 2006, 8, 333-381.	1.0	49
48	The inviscid limit for density-dependent incompressible fluids. Annales De La Faculté Des Sciences De Toulouse, 2006, 15, 637-688.	0.3	48
49	On the uniqueness in critical spaces for compressible Navier-Stokes equations. Nonlinear Differential Equations and Applications, 2005, 12, 111-128.	0.8	59
50	Estimates in Besov spaces for transport and transport-diffusion equations with almost Lipschitz coefficients. Revista Matematica Iberoamericana, 2005, 21, 863-888.	0.9	33
51	Density-dependent incompressible viscous fluids in critical spaces. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2003, 133, 1311-1334.	1.2	155
52	Zero Mach number limit for compressible flows with periodic boundary conditions. American Journal of Mathematics, 2002, 124, 1153-1219.	1.1	84
53	Zero Mach number limit in critical spaces for compressible Navier–Stokes equations. Annales Scientifiques De L'Ecole Normale Superieure, 2002, 35, 27-75.	0.8	75
54	LOCAL THEORY IN CRITICAL SPACES FOR COMPRESSIBLE VISCOUS AND HEAT-CONDUCTIVE GASES. Communications in Partial Differential Equations, 2001, 26, 1183-1233.	2.2	179

#	Article	IF	Citations
55	Global Existence in Critical Spaces for Flows of Compressible Viscous and Heat-Conductive Gases. Archive for Rational Mechanics and Analysis, 2001, 160, 1-39.	2.4	155
56	Existence of solutions for compressible fluid models of Korteweg type. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2001, 18, 97-133.	1.4	139
57	Global existence in critical spaces for compressible Navier-Stokes equations. Inventiones Mathematicae, 2000, 141, 579-614.	2.5	371
58	Evolution d'une singularité de type cusp dans une poche de tourbillon. Revista Matematica Iberoamericana, 2000, 16, 281-329.	0.9	17