Reinhard Farwig

List of Publications by Year
in descending order

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78	1,518	394421	361022
papers	citations	19 h-index	35 g-index

81	81	81	281
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Generalized resolvent estimates for the Stokes system in bounded and unbounded domains. Journal of the Mathematical Society of Japan, 1994, 46, 607.	0.4	148
2	An Lq-approach to Stokes and Navier-Stokes equations in general domains. Acta Mathematica, 2005, 195, 21-53.	3.9	118
3	The stationary exterior 3 D-problem of Oseen and Navier-Stokes equations in anisotropically weighted Sobolev spaces. Mathematische Zeitschrift, 1992, 211, 409-447.	0.9	98
4	An L^q(L²)-theory of the generalized Stokes resolvent system in infinite cylinders. Studia Mathematica, 2007, 178, 197-216.	0.7	78
5	Weighted Lq-theory for the Stokes resolvent in exterior domains. Journal of the Mathematical Society of Japan, 1997, 49, 251.	0.4	72
6	A New Class of Weak Solutions of the Navierâ€“Stokes Equations with Nonhomogeneous Data. Journal of Mathematical Fluid Mechanics, 2006, 8, 423-444.	1.0	66
7	Lq-theory of a singular â€œwindingâ€•integral operator arising from fluid dynamics. Pacific Journal of Mathematics, 2004, 215, 297-313.	0.5	61
8	An $L^{lowercase{q}}$-analysis of viscous fluid flow past a rotating obstacle. Tohoku Mathematical Journal, 2006, 58, .	0.2	55
9	On the Helmholtz decomposition in general unbounded domains. Archiv Der Mathematik, 2007, 88, 239-248.	0.5	48
10	On the spectrum of a Stokes-type operator arising from flow around a rotating body. Manuscripta Mathematica, 2007, 122, 419-437.	0.6	45
11	HELMHOLTZ DECOMPOSITION AND STOKES RESOLVENT SYSTEM FOR APERTURE DOMAINS IN Lq-SPACES. Analysis (Germany), 1996, 16, 1-26.	0.4	44
12	Stationary Navier-Stokes Flow Around a Rotating Obstacle. Funkcialaj Ekvacioj, 2007, 50, 371-403.	0.3	42
13	On optimal initial value conditions for local strong solutions of the Navierâ€“Stokes equations. Annali Dell'Universita Di Ferrara, 2009, 55, 89-110.	1.3	39
14	Very weak solutions of the Navier-Stokes equations in exterior domains with nonhomogeneous data. Journal of the Mathematical Society of Japan, 2007, 59, 127.	0.4	33
15	On the stokes operator in general unbounded domains. Hokkaido Mathematical Journal, 2009, 38, .	0.3	29
16	Optimal initial value conditions for the existence of local strong solutions of the Navierâ€“Stokes equations. Mathematische Annalen, 2009, 345, 631-642.	1.4	26
17	Asymptotic profile of steady Stokes flow around a rotating obstacle. Manuscripta Mathematica, 2011, 136, 315-338.	0.6	24
18	Asymptotic structure of a Leray solution to the Navierâ€“Stokes flow around a rotating body. Pacific Journal of Mathematics, 2011, 253, 367-382.	0.5	23

#	Article	IF	Citations
19	Estimates of lower order derivatives of viscous fluid flow past a rotating obstacle. , 0, , .		22
20	Leading term at infinity of steady Navier-Stokes flow around a rotating obstacle. Mathematische Nachrichten, 2011, 284, 2065-2077.	0.8	20
21	On the Spectrum of an Oseen-Type Operator Arising from Flow past a Rotating Body. Integral Equations and Operator Theory, 2008, 62, 169-189.	0.8	19
22	Periodic solutions of the Navierâ€“Stokes equations with inhomogeneous boundary conditions. Annali Dell'Universita Di Ferrara, 2010, 56, 249-281.	1.3	19
23	Spectral properties in L^q of an Oseen operator modelling fluid flow past a rotating body. Tohoku Mathematical Journal, 2010, 62, .	0.2	18
24	On the Stokes and Navierâ€Stokes System for Domains with Noncompact Boundary in L^qâ€spaces. Mathematische Nachrichten, 1994, 170, 53-77.	0.8	17
25	A weighted L q -approach to Stokes flow around a rotating body. Annali Dell'Universita Di Ferrara, 2008, 54, 61-84.	1.3	17
26	Energy-Based Regularity Criteria for the Navierâ€“Stokes Equations. Journal of Mathematical Fluid Mechanics, 2009, 11, 428-442.	1.0	17
27	On the energy equality of Navierâ€“Stokes equations in general unbounded domains. Archiv Der Mathematik, 2010, 95, 447-456.	0.5	17
28	Very Weak Solutions of Stationary and Instationary Navier-Stokes Equations with Nonhomogeneous Data. , 2005, , 113-136.		16
29	Resolvent Estimates and Maximal Regularity in Weighted L q -spaces of the Stokes Operator in an Infinite Cylinder. Journal of Mathematical Fluid Mechanics, 2008, 10, 352-387.	1.0	15
30	Extensions of Serrinâ€™s Uniqueness and Regularity Conditions for the Navierâ€“Stokes Equations. Journal of Mathematical Fluid Mechanics, 2012, 14, 529-540.	1.0	15
31	Initial Values for the Navier-Stokes Equations in Spaces with Weights in Time. Funkcialaj Ekvacioj, 2016, 59, 199-216.	0.3	14
32	Asymptotic profiles of steady Stokes and Navierâ€“Stokes flows around a rotating obstacle. Annali Dell'Universita Di Ferrara, 2009, 55, 263-277.	1.3	13
33	Note on the flux condition and pressure drop in the resolvent problem of the Stokes system. Manuscripta Mathematica, 1996, 89, 139-158.	0.6	12
34	Uniqueness of almost periodic-in-time solutions to Navierâ€“Stokes equations in unbounded domains. Journal of Evolution Equations, 2011, 11, 485-508.	1.1	11
35	Lerayâ€™s inequality in general multi-connected domains in $${mathbb{R}^n}$$. Mathematische Annalen, 2012, 354, 137-145.	1.4	11
36	On regularity of weak solutions to the instationary Navierâ€“Stokes system: a review on recent results. Annali Dell'Universita Di Ferrara, 2014, 60, 91-122.	1.3	11

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37	The Resolvent Problem and $${{H^{infty}}}$$ -calculus of the Stokes Operator in Unbounded Cylinders with Several Exits to Infinity. Journal of Evolution Equations, 2007, 7, 497-528.	1.1	10
38	Regularity of weak solutions to the Navierâ€“Stokes equations in exterior domains. Nonlinear Differential Equations and Applications, 2010, 17, 303-321.	0.8	10
39	Besov Space Regularity Conditions for Weak Solutions of the Navierâ€“Stokes Equations. Journal of Mathematical Fluid Mechanics, 2014, 16, 307-320.	1.0	9
40	Very weak solutions to the Navierâ€“Stokes system in general unbounded domains. Journal of Evolution Equations, 2015, 15, 253-279.	1.1	9
41	The time periodic problem of the Navierâ€“Stokes equations in a bounded domain with moving boundary. Nonlinear Analysis: Real World Applications, 2021, 61, 103339.	1.7	9
42	Necessary and sufficient conditions on local strong solvability of the Navierâ€“Stokes system. Applicable Analysis, 2011, 90, 47-58.	1.3	8
43	Weak solutions of the Navierâ€“Stokes equations with non-zero boundary values in an exterior domain satisfying the strong energy inequality. Journal of Differential Equations, 2014, 256, 2633-2658.	2.2	8
44	Existence of solutions on the whole time axis to the Navier-Stokes equations with precompact range in L 3. Archiv Der Mathematik, 2015, 104, 539-550.	0.5	8
45	Asymptotic behavior for the quasi-geostrophic equations with fractional dissipation in R2. Journal of Differential Equations, 2019, 266, 6525-6579.	2.2	8
46	Criteria of local in time regularity of the Navier-Stokes equations beyond Serrin's condition. , 0, , .		8
47	Stokes resolvent systems in an infinite cylinder. Mathematische Nachrichten, 2007, 280, 1061-1082.	0.8	7
48	Maximal Regularity of the Stokes Operator in General Unbounded Domains of â„•n. , 2007, , 257-272.		7
49	On the existence of local strong solutions for the Navierâ€“Stokes equations in completely general domains. Nonlinear Analysis: Theory, Methods & Applications, 2010, 73, 1459-1465.	1.1	6
50	Uniqueness of Solutions on the Whole Time Axis to the Navier-Stokes Equations in Unbounded Domains. Communications in Partial Differential Equations, 2015, 40, 1884-1904.	2.2	6
51	Maximal regularity of the Stokes operator in an exterior domain with moving boundary and application to the Navierâ€“Stokes equations. Mathematische Annalen, 2019, 375, 949-972.	1.4	6
52	Existence and exponential stability inLr-spaces of stationary Navierâ€“Stokes flows with prescribed flux in infinite cylindrical domains. Mathematical Methods in the Applied Sciences, 2007, 30, 171-199.	2.3	5
53	The fundamental solution of linearized nonstationary Navier-Stokes equations of motion around a rotating and translating body. Discrete and Continuous Dynamical Systems, 2013, 34, 511-529.	0.9	5
54	Very weak solutions and the Fujita-Kato approach to the Navier-Stokes system in general unbounded domains. Nonlinear Differential Equations and Applications, 2015, 22, 1143-1165.	0.8	4

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55	Incompressible inhomogeneous fluids in bounded domains of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msup><mml:mrow><mml:mi mathvariant="double-struck">R</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup></mml:math bounded density. Journal of Functional Analysis, 2020, 278, 108394.	1.4	4
56	Regularity of Weak Solutions for the Navier-Stokes Equations Via Energy Criteria. , 2010, , 215-227.		4
57	Regularity criteria for weak solutions of the Navier-Stokes system in general unbounded domains. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, 157-172.	1.1	4
58	The Fujita-Kato Approach for The Navier-Stokes Equations with Moving Boundary and Its Application. Journal of Mathematical Fluid Mechanics, 2022, 24, .	1.0	4
59	Optimal initial value conditions for local strong solutions of the Navierâ€“Stokes equations in exterior domains. Analysis (Germany), 2013, 33, 101-120.	0.4	3
60	Existence of strong solutions and decay of turbulent solutions of Navierâ€“Stokes flow with nonzero Dirichlet boundary data. Journal of Mathematical Analysis and Applications, 2017, 453, 271-286.	1.0	3
61	Stokes Semigroups, Strong, Weak, and Very Weak Solutions for General Domains. , 2018, , 419-459.		3
62	On the continuity of the solutions to the Navierâ€“Stokes equations with initial data in critical Besov spaces. Annali Di Matematica Pura Ed Applicata, 2019, 198, 1495-1511.	1.0	3
63	From Jean Leray to the millennium problem: the Navierâ€“Stokes equations. Journal of Evolution Equations, 2021, 21, 3243-3263.	1.1	3
64	Optimality of Serrin type extension criteria to the Navier-Stokes equations. Advances in Nonlinear Analysis, 2021, 10, 1071-1085.	2.6	3
65	Maximal regularity in exponentially weighted Lebesgue spaces of the Stokes operator in unbounded cylinders. Analysis (Germany), 2015, 35, 139-160.	0.4	2
66	Spatial Asymptotic Profiles of Solutions to the Navier-Stokes System in a Rotating Frame with Fast Decaying Data. Hokkaido Mathematical Journal, 2018, 47, .	0.3	2
67	Well-chosen weak solutions of the instationary Navier-Stokes system and their uniqueness. Hokkaido Mathematical Journal, 2018, 47, .	0.3	2
68	Maximal regularity of the Stokes system with Navier boundary condition in general unbounded domains. Journal of the Mathematical Society of Japan, 2019, 71, .	0.4	2
69	Uniform estimates for fractional operators. SN Partial Differential Equations and Applications, 2021, 2, 1.	0.6	2
70	Local Regularity Results for the Instationary Navier-Stokes Equations Based on Besov Space Type Criteria. Advances in Mathematical Fluid Mechanics, 2016, , 183-214.	0.1	2
71	Uniqueness of backward asymptotically almost periodic-in-time solutions to Navier-Stokes equations in unbounded domains. Discrete and Continuous Dynamical Systems - Series S, 2013, 6, 1215-1224.	1.1	2
72	Maximal L1-Regularity of Generators for Bounded Analytic Semigroups in Banach Spaces. Acta Mathematica Scientia, 2022, 42, 1261-1272.	1.0	2

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73	Jean Leray: Sur le mouvement dâ€™un liquide visqueux emplissant lâ€™espace.. Deutsche Mathematiker Vereinigung Jahresbericht, 2017, 119, 249-272.	1.1	1
74	Weak Solutions to a Fluid-Structure Interaction Model of a Viscous Fluid with an Elastic Plate under Coulomb Friction Coupling. Mathematics, 2021, 9, 1026.	2.2	1
75	Decay of Non-Stationary Navier-Stokes Flow with Nonzero Dirichlet Boundary Data. Indiana University Mathematics Journal, 2017, 66, 2169-2185.	0.9	0
76	The global existence and attractor for p-Laplace equations in unbounded domains. Journal of Elliptic and Parabolic Equations, 2020, 6, 311-342.	0.9	0
77	An $$L^2$$ approach to viscous flow in the half space with free elastic surface. Journal of Elliptic and Parabolic Equations, 0, , 1.	0.9	0
78	Die (un-)berechenbare Angst des Mathematikers vor dem Fliegen. Mathematische Semesterberichte, 1999, 46, 155-185.	0.2	0