Gregory Seregin

List of Publications by Year
in descending order

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101	2,536	304743	206112
papers	citations	22	48
		h-index	g-index

104	104	104	741
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	L3,â^ž-solutions of the Navier-Stokes equations and backward uniqueness. Russian Mathematical Surveys, 2003, 58, 211-250.	0.6	298
2	On Partial Regularity of Suitable Weak Solutions to the Three-Dimensional NavierÂ—Stokes equations. Journal of Mathematical Fluid Mechanics, 1999, 1, 356-387.	1.0	214
3	Liouville theorems for the Navierâ€“Stokes equations and applications. Acta Mathematica, 2009, 203, 83-105.	3.9	190
4	Backward Uniqueness for Parabolic Equations. Archive for Rational Mechanics and Analysis, 2003, 169, 147-157.	2.4	149
5	Variational Methods for Problems from Plasticity Theory and for Generalized Newtonian Fluids. Lecture Notes in Mathematics, 2000, , .	0.2	130
6	Regularity results for parabolic systems related to a class of non-Newtonian fluids. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2004, 21, 25-60.	1.4	123
7	Global Existence of Weak Solutions for Viscous Incompressible Flows around a Moving Rigid Body in Three Dimensions. Journal of Mathematical Fluid Mechanics, 2000, 2, 219-266.	1.0	118
8	Local Regularity of Suitable Weak Solutions to the Navier--Stokes Equations Near the Boundary. Journal of Mathematical Fluid Mechanics, 2002, 4, 1-29.	1.0	86
9	Navier-Stokes Equations with Lower Bounds on the Pressure. Archive for Rational Mechanics and Analysis, 2002, 163, 65-86.	2.4	75
10	The real butterfly effect. Nonlinearity, 2014, 27, R123-R141.	1.4	74
11	On divergence-free drifts. Journal of Differential Equations, 2012, 252, 505-540.	2.2	73
12	A Certain Necessary Condition of Potential Blow up for Navier-Stokes Equations. Communications in Mathematical Physics, 2012, 312, 833-845.	2.2	69
13	On Type I Singularities of the Local Axi-Symmetric Solutions of the Navierâ€“Stokes Equations. Communications in Partial Differential Equations, 2009, 34, 171-201.	2.2	68
14	Liouville type theorem for stationary Navierâ€“Stokes equations. Nonlinearity, 2016, 29, 2191-2195.	1.4	66
15	On smoothness of L3,?-solutions to the Navier?Stokes equations up to boundary. Mathematische Annalen, 2005, 332, 219-238.	1.4	44
16	A regularity theory for variational integrals with $Lln L$ -Growth. Calculus of Variations and Partial Differential Equations, 1998, 6, 171-187.	1.7	40
17	Variational methods for fluids of Prandtl-Eyring type and plastic materials with logarithmic hardening. Mathematical Methods in the Applied Sciences, 1999, 22, 317-351.	2.3	32
18	On the number of singular points of weak solutions to the Navier-Stokes equations. Communications on Pure and Applied Mathematics, 2001, 54, 1019-1028.	3.1	28

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19	Global regularity of solutions of coupled Navier-Stokes equations and nonlinear Fokker Planck equations. Discrete and Continuous Dynamical Systems, 2010, 26, 1185-1196.	0.9	28
20	Regularity results for the quasiâ€“static Bingham variational inequality in dimensions two and three. Mathematische Zeitschrift, 1998, 227, 525-541.	0.9	26
21	Estimates of suitable weak solutions to the Navier-Stokes equations in critical Morrey spaces. Journal of Mathematical Sciences, 2007, 143, 2961-2968.	0.4	26
22	The Navierâ€”Stokes Equations and Backward Uniqueness. International Mathematical Series, 2002, , 353-366.	0.3	23
23	Backward uniqueness for the heat operator in a half-space. St Petersburg Mathematical Journal, 2003, 15, 139-148.	0.4	21
24	On Smoothness of Suitable Weak Solutions to the Navier-Stokes Equations. Journal of Mathematical Sciences, 2005, 130, 4884-4892.	0.4	18
25	Sufficient conditions on Liouville type theorems for the 3D steady Navierâ€“Stokes equations. St Petersburg Mathematical Journal, 2020, 31, 387-393.	0.4	18
26	New Sufficient Conditions of Local Regularity for Solutions to the Navierâ€“Stokes Equations. Journal of Mathematical Fluid Mechanics, 2008, 10, 106-125.	1.0	17
27	On global weak solutions to the Cauchy problem for the Navierâ€“Stokes equations with large <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>L</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math> data. Nonlinear Analysis: Theory, Methods & Applications, 2017, 154, 269-296.	1.1	17
28	Local regularity for suitable weak solutions of the Navier-Stokes equations. Russian Mathematical Surveys, 2007, 62, 595-614.	0.6	16
29	A Sufficient Condition of Regularity for Axially Symmetric Solutions to the Navierâ€“Stokes Equations. SIAM Journal on Mathematical Analysis, 2007, 39, 669-685.	1.9	16
30	Navierâ€“Stokes Equations: Almost L3,âˆž-Case. Journal of Mathematical Fluid Mechanics, 2007, 9, 34-43.	1.0	16
31	Some Remarks on Non-Newtonian Fluids Including Nonconvex Perturbations of the Bingham and Powellâ€“Eyring Model for Viscoplastic Fluids. Mathematical Models and Methods in Applied Sciences, 1997, 07, 405-433.	3.3	14
32	Ancient Solutions to Navierâ€“Stokes Equations in Half Space. Journal of Mathematical Fluid Mechanics, 2015, 17, 551-575.	1.0	14
33	Differentiability properties of weak solutions of certain variational problems in the theory of perfect elastoplastic plates. Applied Mathematics and Optimization, 1993, 28, 307-335.	1.6	13
34	On a dynamical system generated by the two-dimensional equations of the motion of a Bingham fluid. Journal of Mathematical Sciences, 1994, 70, 1806-1816.	0.4	13
35	A necessary condition of potential blowup for the Navierâ€“Stokes system in half-space. Mathematische Annalen, 2017, 369, 1327-1352.	1.4	13
36	Topics in Mathematical Fluid Mechanics. Lecture Notes in Mathematics, 2013, , .	0.2	13

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37	Partial Boundary Regularity for the Navier-Stokes Equations. Journal of Mathematical Sciences, 2006, 132, 339-358.	0.4	12
38	Liouville theorems in unbounded domains for the time-dependent stokes system. Journal of Mathematical Physics, 2012, 53, .	1.1	12
39	On the best position of elastic symmetry planes in an orthotropic body. Prikladnaya Matematika I Mekhanika, 1981, 45, 139-142.	0.4	11
40	Liouville-type theorems for the Navierâ€“Stokes equations. Russian Mathematical Surveys, 2018, 73, 661-724.	0.6	11
41	Two-dimensional variational problems of the theory of plasticity. Izvestiya Mathematics, 1996, 60, 179-216.	0.6	10
42	Remarks on regularity up to the boundary for solutions to variational problems in plasticity theory. Journal of Mathematical Sciences, 1999, 93, 779-783.	0.4	10
43	A note on local boundary regularity for the stokes system. Journal of Mathematical Sciences, 2010, 166, 86-90.	0.4	10
44	Liouville Theorem for 2D Navier-Stokes Equations in a Half Space. Journal of Mathematical Sciences, 2015, 210, 849-856.	0.4	10
45	Regularity Criteria for Navier-Stokes Solutions. , 2018, , 829-867.		10
46	Error estimates for stresses in the finite element analysis of the two-dimensional elasto-plastic problems. International Journal of Engineering Science, 1995, 33, 255-268.	5.0	9
47	Local Regularity Theory of the Navierâ€“Stokes Equations. Handbook of Mathematical Fluid Dynamics, 2007, 4, 159-200.	0.1	9
48	Remarks on Liouville type theorems for steady-state Navierâ€“Stokes equations. St Petersburg Mathematical Journal, 2019, 30, 321-328.	0.4	9
49	Variation-difference schemes for problems in the mechanics of ideally elastoplastic media. USSR Computational Mathematics and Mathematical Physics, 1985, 25, 153-165.	0.0	8
50	Differential properties of solutions of variational problems for functionals of linear growth. Journal of Soviet Mathematics, 1993, 64, 1256-1277.	0.0	8
51	Sufficient condition of local regularity for the Navier-Stokes equations. Journal of Mathematical Sciences, 2007, 143, 2869-2874.	0.4	8
52	On stability of weak Navierâ€“Stokes solutions with largeL^{3,âˆž}initial data. Communications in Partial Differential Equations, 2018, 43, 628-651.	2.2	8
53	Necessary conditions of a potential blow-up for Navierâ€“Stokes equations. Journal of Mathematical Sciences, 2011, 178, 345-352.	0.4	7
54	On a bounded shear flow in a half-space. Journal of Mathematical Sciences, 2011, 178, 353-356.	0.4	7

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55	Rescalings at possible singularities of Navierâ€“Stokes equations in half-space. St Petersburg Mathematical Journal, 2014, 25, 815-833.	0.4	7
56	Differential properties of solutions of evolution variational inequalities in the theory of plasticity. Journal of Mathematical Sciences, 1994, 72, 3449-3458.	0.4	6
57	The uniqueness of solutions of some variational problems of the theory of phase equilibrium in solid bodies. Journal of Mathematical Sciences, 1996, 80, 2333-2348.	0.4	6
58	Full regularity for a class of degenerated parabolic systems in two spatial variables. Manuscripta Mathematica, 1999, 99, 517-539.	0.6	6
59	Lerayâ€“Hopf solutions to Navierâ€“Stokes equations with weakly converging initial data. , 0, , 251-258.		6
60	Local regularity of axisymmetric solutions to the Navierâ€“Stokes equations. Analysis and Mathematical Physics, 2020, 10, 1.	1.3	6
61	Smoothness of solutions of equations describing generalized Newtonian flows and estimates for the dimensions of their attractors. Izvestiya Mathematics, 1998, 62, 55-113.	0.6	5
62	A global nonlinear evolution problem for generalized Newtonian fluids: Local initial regularity of the strong solution. Computers and Mathematics With Applications, 2007, 53, 509-520.	2.7	5
63	Axisymmetric flows in the exterior of a cylinder. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2020, 150, 1671-1698.	1.2	5
64	Some remarks on the mollification of piecewise-linear homeomorphisms. Journal of Mathematical Sciences, 1997, 87, 3428-3433.	0.4	4
65	Regularity for minimizers of some variational problems in plasticity theory. Journal of Mathematical Sciences, 2000, 99, 969-988.	0.4	4
66	New version of the Ladyzhenskayaâ€“Prodiâ€“Serrin condition. St Petersburg Mathematical Journal, 2006, 18, 89-103.	0.4	4
67	A Liouville theorem for the Stokes system in a half-space. Journal of Mathematical Sciences, 2013, 195, 13-19.	0.4	4
68	Selected Topics of Local Regularity Theory for Navierâ€“Stokes Equations. Lecture Notes in Mathematics, 2013, , 239-313.	0.2	4
69	A Note on Local Regularity of Axisymmetric Solutions to the Navierâ€“Stokes Equations. Journal of Mathematical Fluid Mechanics, 2022, 24, 1.	1.0	4
70	Remark on Wolfâ€™s Condition for Boundary Regularity of the Navierâ€“Stokes Equations. Journal of Mathematical Sciences, 2017, 224, 468-474.	0.4	3
71	Regularity of Solutions to the Navierâ€“Stokes Equations in $$ {dot{B}}_{infty, infty}^{-1} $$. Journal of Mathematical Sciences, 2020, 244, 1003-1009.	0.4	3
72	A Slightly Supercritical Condition of Regularity of Axisymmetric Solutions to the Navierâ€“Stokes Equations. Journal of Mathematical Fluid Mechanics, 2022, 24, 1.	1.0	3

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73	Extension of the variational formulation of the problem for a rigid-plastic medium to velocity fields with slip-type discontinuities. Prikladnaya Matematika I Mekhanika, 1983, 47, 820-827.	0.4	2
74	On one method of approximation of initial boundary value problems for the Navier-Stokes equations. Journal of Mathematical Sciences, 1995, 75, 2038-2057.	0.4	2
75	Some remarks on variational problems for functionals withLlnL growth. Journal of Mathematical Sciences, 1997, 84, 919-929.	0.4	2
76	Local regularity of solutions of variational problems for the equilibrium configuration of an incompressible, multiphase elastic body. Nonlinear Differential Equations and Applications, 2001, 8, 53-81.	0.8	2
77	Title is missing!. Journal of Mathematical Sciences, 2002, 109, 1911-1927.	0.4	2
78	Existence of global solutions for a parabolic system related to the nonlinear Stokes problem. Journal of Mathematical Sciences, 2008, 152, 769-779.	0.4	2
79	On regularity properties of a surface growth model. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2021, 151, 1869-1892.	1.2	2
80	VARIATIONAL PROBLEMS AND EVOLUTION VARIATIONAL INEQUALITIES IN NONREFLEXIVE SPACES WITH APPLICATIONS TO PROBLEMS OF GEOMETRY AND PLASTICITY. Mathematics of the USSR Izvestija, 1985, 24, 391-414.	0.2	1
81	A dual finite element approach for stresses of elasto-perfectly plastic bodies. Mathematics of Computation, 1995, 64, 1455-1462.	2.1	1
82	ABOUT OPTIMAL SHAPE DESIGN IN FLUID DYNAMICS. Optimal Control Applications and Methods, 1995, 16, 143-148.	2.1	1
83	Remarks on the regularity of weak solutions to the Navier-Stokes equations near the boundary. Journal of Mathematical Sciences, 2005, 127, 1915-1922.	0.4	1
84	A note on bounded scale-invariant quantities for the Navier-Stokes equations. Journal of Mathematical Sciences, 2012, 185, 742-745.	0.4	1
85	Time decay for solutions to the Stokes equations with drift. Communications in Contemporary Mathematics, 2018, 20, 1750046.	1.2	1
86	Regularity Criteria for Navier-Stokes Solutions. , 2016, , 1-38.		1
87	On Type I Blowups of Suitable Weak Solutions to the Navierâ€“Stokes Equations Near Boundary. Journal of Mathematical Sciences, 2022, 260, 52-62.	0.4	1
88	Variational formulations of certain problems of the theory of the flow of rigid-plastic media. Prikladnaya Matematika I Mekhanika, 1984, 48, 728-731.	0.4	0
89	Formulations of the problems of the theory of an ideally elastic-plastic body. Prikladnaya Matematika I Mekhanika, 1985, 49, 651-659.	0.4	0
90	On a variational difference scheme for problems of limiting equilibrium. USSR Computational Mathematics and Mathematical Physics, 1987, 27, 53-59.	0.0	0

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91	A Dual Finite Element Approach for Stresses of Elasto-Perfectly Plastic Bodies. Mathematics of Computation, 1995, 64, 1455.	2.1	0
92	A local estimate of the maximum of the module of the deviator of the strain tensor in an elastoplastic body with linear hardening. Journal of Mathematical Sciences, 1995, 77, 3243-3249.	0.4	0
93	Attractors for equations describing the flow of generalized Newtonian fluids. Journal of Mathematical Sciences, 2000, 101, 3539-3562.	0.4	0
94	Partial Regularity for Solutions of the Modified Navierâ€•Stokes Equations. Journal of Mathematical Sciences, 2002, 109, 1984-1996.	0.4	0
95	To the Jubilee of Vsevolod Alekseevich Solonnikov. Journal of Mathematical Sciences, 2005, 130, 4775-4779.	0.4	0
96	Nina Nikolaevna Uraltseva. To the 70th Anniversary of Her Birthday. Journal of Mathematical Sciences, 2006, 132, 249-254.	0.4	0
97	To the 75th birthday of Vsevolod Alekseevich Solonnikov. Journal of Mathematical Sciences, 2009, 159, 385-390.	0.4	0
98	Reverse HÃ¶lder inequality for a class of suitable weak solutions to the Navierâ€“Stokes equations. Journal of Mathematical Sciences, 2009, 159, 573-579.	0.4	0
99	LlogL-Integrability of the Velocity Gradient for Stokes System with Drifts in Lâˆž(BMOâˆ’1). Journal of Mathematical Sciences, 2019, 236, 399-412.	0.4	0
100	An approximation of forward self-similar solutions to the 3D Navier-Stokes system. Discrete and Continuous Dynamical Systems, 2021, 41, 4823.	0.9	0
101	A note on weak solutions to the Navierâ€“Stokes equations that are locally in ?_{âˆž}(?^{3,âˆž}). St Petersburg Mathematical Journal, 2021, 32, 565-576.	0.4	0