Piotr Gwiazda

List of Publications by Year
in descending order

78 papers	1,319 citations	361045 20 h-index	414034 32 g-index
79 all docs	79 docs citations	79 times ranked	408 citing authors

#	Article	IF	Citations
1	On Unsteady Flows of Implicitly Constituted Incompressible Fluids. SIAM Journal on Mathematical Analysis, 2012, 44, 2756-2801.	0.9	76
2	Gossez's approximation theorems in Musielakâ€“Orliczâ€“Sobolev spaces. Journal of Functional Analysis, 2018, 275, 2538-2571.	0.7	62
3	ON NON-NEWTONIAN FLUIDS WITH A PROPERTY OF RAPID THICKENING UNDER DIFFERENT STIMULUS. Mathematical Models and Methods in Applied Sciences, 2008, 18, 1073-1092.	1.7	61
4	Regularity and Energy Conservation for the Compressible Euler Equations. Archive for Rational Mechanics and Analysis, 2017, 223, 1375-1395.	1.1	61
5	Weak-strong uniqueness for measure-valued solutions of some compressible fluid models. Nonlinearity, 2015, 28, 3873-3890.	0.6	60
6	Dissipative measure-valued solutions to the compressible Navierâ€“Stokes system. Calculus of Variations and Partial Differential Equations, 2016, 55, 1.	0.9	59
7	Existence of renormalized solutions to elliptic equation in Musielakâ€“Orlicz space. Journal of Differential Equations, 2018, 264, 341-377.	1.1	53
8	A nonlinear structured population model: Lipschitz continuity of measure-valued solutions with respect to model ingredients. Journal of Differential Equations, 2010, 248, 2703-2735.	1.1	50
9	Structured populations, cell growth and measure valued balance laws. Journal of Differential Equations, 2012, 252, 3245-3277.	1.1	47
10	On steady flows of incompressible fluids with implicit power-law-like rheology. Advances in Calculus of Variations, 2009, 2, .	0.7	46
11	Monotonicity methods in generalized Orlicz spaces for a class of non-Newtonian fluids. Mathematical Methods in the Applied Sciences, 2010, 33, 125-137.	1.2	43
12	Renormalized solutions of nonlinear elliptic problems in generalized Orlicz spaces. Journal of Differential Equations, 2012, 253, 635-666.	1.1	43
13	Renormalized solutions to nonlinear parabolic problems in generalized Musielakâ€“Orlicz spaces. Nonlinear Analysis: Theory, Methods & Applications, 2015, 129, 1-36.	0.6	36
14	STRUCTURED POPULATION EQUATIONS IN METRIC SPACES. Journal of Hyperbolic Differential Equations, 2010, 07, 733-773.	0.3	32
15	Mass concentration in a nonlocal model of clonal selection. Journal of Mathematical Biology, 2016, 73, 1001-1033.	0.8	26
16	Nonhomogeneous Initial-Boundary Value Problems for Coercive and Self-Controlling Models of Monotone Type. Continuum Mechanics and Thermodynamics, 2000, 12, 217-234.	1.4	24
17	Well-posedness of parabolic equations in the non-reflexive and anisotropic Musielakâ€“Orlicz spaces in the class of renormalized solutions. Journal of Differential Equations, 2018, 265, 5716-5766.	1.1	24
18	Convergence of coercive approximations for strictly monotone quasistatic models in inelastic deformation theory. Mathematical Methods in the Applied Sciences, 2007, 30, 1357-1374.	1.2	23

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19	Analysis of particle methods for structured population models with nonlocal boundary term in the framework of bounded Lipschitz distance. Numerical Methods for Partial Differential Equations, 2014, 30, 1797-1820.	2.0	21
20	Models of Discrete and Continuous Cell Differentiation in the Framework of Transport Equation. SIAM Journal on Mathematical Analysis, 2012, 44, 1103-1133.	0.9	20
21	Splitting-particle methods for structured population models: Convergence and applications. Mathematical Models and Methods in Applied Sciences, 2014, 24, 2171-2197.	1.7	20
22	A Note on Weak Solutions of Conservation Laws and Energy/Entropy Conservation. Archive for Rational Mechanics and Analysis, 2018, 229, 1223-1238.	1.1	19
23	On measure-valued solutions to a two-dimensional gravity-driven avalanche flow model. Mathematical Methods in the Applied Sciences, 2005, 28, 2201-2223.	1.2	18
24	Weak solutions for Euler systems with non-local interactions. Journal of the London Mathematical Society, 2017, 95, 705-724.	0.5	18
25	Parabolic equation in time and space dependent anisotropic Musielakâ€“Orlicz spaces in absence of Lavrentiev's phenomenon. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2019, 36, 1431-1465.	0.7	18
26	ON SCALAR HYPERBOLIC CONSERVATION LAWS WITH A DISCONTINUOUS FLUX. Mathematical Models and Methods in Applied Sciences, 2011, 21, 89-113.	1.7	17
27	On the Extension of Onsagerâ€™s Conjecture for General Conservation Laws. Journal of Nonlinear Science, 2019, 29, 501-510.	1.0	17
28	A two-species hyperbolicâ€“parabolic model of tissue growth. Communications in Partial Differential Equations, 2019, 44, 1605-1618.	1.0	16
29	Thermo-visco-elasticity for Nortonâ€“Hoff-type models. Nonlinear Analysis: Real World Applications, 2015, 26, 199-228.	0.9	13
30	Conservation of energy for the Eulerâ€“Korteweg equations. Calculus of Variations and Partial Differential Equations, 2018, 57, 1.	0.9	13
31	On the Model of Bodner - Partom with Nonhomogeneous Boundary Data. Mathematische Nachrichten, 2000, 214, 5-23.	0.4	12
32	Measures under the flat norm as ordered normed vector space. Positivity, 2018, 22, 105-138.	0.3	12
33	Generalized Stokes system in Orlicz spaces. Discrete and Continuous Dynamical Systems, 2012, 32, 2125-2146.	0.5	12
34	Measure valued solutions to conservation laws motivated by traffic modelling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 1791-1803.	1.0	11
35	On elliptic and parabolic systems withx-dependent multivalued graphs. Mathematical Methods in the Applied Sciences, 2007, 30, 213-236.	1.2	11
36	On flows of an incompressible fluid with a discontinuous power-law-like rheology. Computers and Mathematics With Applications, 2007, 53, 531-546.	1.4	11

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37	MULTI-DIMENSIONAL SCALAR CONSERVATION LAWS WITH FLUXES DISCONTINUOUS IN THE UNKNOWN AND THE SPATIAL VARIABLE. Mathematical Models and Methods in Applied Sciences, 2013, 23, 407-439.	1.7	11
38	Relative Entropy Method for Measure Solutions of the Growth-Fragmentation Equation. SIAM Journal on Mathematical Analysis, 2018, 50, 5811-5824.	0.9	11
39	Renormalized solutions to parabolic equations in time and space dependent anisotropic Musielakâ€“Orlicz spaces in absence of Lavrentiev's phenomenon. Journal of Differential Equations, 2019, 267, 1129-1166.	1.1	11
40	Dissipative measure-valued solutions for general conservation laws. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2020, 37, 683-707.	0.7	11
41	Elliptic problems in generalized Orlicz-Musielak spaces. Open Mathematics, 2012, 10, .	0.5	10
42	Generalized entropy method for the renewal equation with measure data. Communications in Mathematical Sciences, 2017, 15, 577-586.	0.5	10
43	Corrigendum to â€œRenormalized solutions of nonlinear elliptic problems in generalized Orlicz spacesâ€• [J. Differential Equations 253 (2) (2012) 635â€“666]. Journal of Differential Equations, 2012, 253, 2734-2738.	1.1	9
44	Multi-dimensional scalar balance laws with discontinuous flux. Journal of Functional Analysis, 2014, 267, 2846-2883.	0.7	9
45	Large eddy simulation turbulence model with Young measures. Applied Mathematics Letters, 2005, 18, 923-929.	1.5	8
46	Onsager's conjecture in bounded domains for the conservation of entropy and other companion laws. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190289.	1.0	7
47	The Escalator Boxcar Train Method for a System of Age-Structured Equations in the Space of Measures. SIAM Journal on Numerical Analysis, 2019, 57, 1842-1874.	1.1	7
48	On renormalized solutions to elliptic inclusions with nonstandard growth. Calculus of Variations and Partial Differential Equations, 2021, 60, 1.	0.9	7
49	Bayesian inference of a non-local proliferation model. Royal Society Open Science, 2021, 8, 211279.	1.1	7
50	Multivalued equations for granular avalanches. Nonlinear Analysis: Theory, Methods & Applications, 2005, 62, 895-912.	0.6	6
51	On weak solutions to the 2D Savageâ€“Hutter model of the motion of a gravity-driven avalanche flow. Communications in Partial Differential Equations, 2016, 41, 759-773.	1.0	6
52	Thermo-visco-elasticity for the MrÃ³z model in the framework of thermodynamically complete systems. Discrete and Continuous Dynamical Systems - Series S, 2014, 7, 981-991.	0.6	6
53	On singular limits to Bodner-Partom model. Mathematical Methods in the Applied Sciences, 2001, 24, 159-178.	1.2	5
54	Parabolic Equations in Anisotropic Orlicz Spaces with General N-functions. Progress in Nonlinear Differential Equations and Their Application, 2011, , 301-311.	0.4	5

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55	Bayesian evidence synthesis to estimate HIV prevalence in men who have sex with men in Poland at the end of 2009. Epidemiology and Infection, 2016, 144, 1175-1191.	1.0	5
56	Transport equations with integral terms: existence, uniqueness and stability. Calculus of Variations and Partial Differential Equations, 2016, 55, 1.	0.9	5
57	Existence of global weak solutions to the kinetic Peterlin model. Nonlinear Analysis: Real World Applications, 2018, 44, 465-478.	0.9	5
58	Parabolic equations in Musielak - Orlicz spaces with discontinuous in time N-function. Journal of Differential Equations, 2021, 290, 17-56.	1.1	5
59	The Escalator Boxcar Train method for a system of age-structured equations. Networks and Heterogeneous Media, 2016, 11, 123-143.	0.5	5
60	Existence and uniqueness theorem for the Chan-Bodner-Lindholm model. Mathematical Methods in the Applied Sciences, 1999, 22, 285-300.	1.2	4
61	On the anisotropic Orlicz spaces applied in the problems of continuum mechanics. Discrete and Continuous Dynamical Systems - Series S, 2013, 6, 1291-1306.	0.6	4
62	Homogenization of nonlinear elliptic systems in nonreflexive Musielakâ€“Orlicz spaces. Nonlinearity, 2019, 32, 1073-1110.	0.6	4
63	Existence and homogenization of nonlinear elliptic systems in nonreflexive spaces. Nonlinear Analysis: Theory, Methods & Applications, 2020, 194, 111487.	0.6	4
64	Finite range method of approximation for balance laws in measure spaces. Kinetic and Related Models, 2017, 10, 669-688.	0.5	4
65	An L¹-stability and uniqueness result for balance laws with multifunctions: a model from the theory of granular media. Colloquium Mathematicum, 2004, 100, 149-162.	0.2	3
66	Convergence of the EBT method for a non-local model of cell proliferation with discontinuous interaction kernel. IMA Journal of Numerical Analysis, 2023, 43, 590-626.	1.5	3
67	Non-homogeneous boundary value problem for the Chan-Bodner-Linholm model. Mathematical Methods in the Applied Sciences, 2000, 23, 1011-1022.	1.2	2
68	Existence via compactness for maximal monotone elliptic operators. Comptes Rendus Mathematique, 2005, 340, 489-492.	0.1	2
69	Bayesian inference for age-structured population model of infectious disease with application to varicella in Poland. Journal of Theoretical Biology, 2016, 407, 38-50.	0.8	2
70	Thermo-visco-elasticity for Nortonâ€“Hoff-type models with homogeneous thermal expansion. Nonlinear Analysis: Real World Applications, 2018, 40, 337-360.	0.9	2
71	An existence result for balance laws with multifunctions: a model from the theory of granular media. Colloquium Mathematicum, 2003, 97, 67-79.	0.2	2
72	Analysis of a viscosity model for concentrated polymers. Mathematical Models and Methods in Applied Sciences, 2016, 26, 1599-1648.	1.7	1

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73	On unified theory for scalar conservation laws with fluxes and sources discontinuous with respect to the unknown. Journal of Differential Equations, 2017, 262, 313-364.	1.1	1
74	Optimization in structure population models through the Escalator Boxcar Train. ESAIM - Control, Optimisation and Calculus of Variations, 2018, 24, 377-399.	0.7	1
75	Resistance to Translation: On Paul Celan's â€œWeggebeiztâ€• Translation Review, 2001, 61, 55-59.	0.3	0
76	Sensitivity upon the constitutive relations in materials with memory. Continuum Mechanics and Thermodynamics, 2005, 17, 159-164.	1.4	0
77	?Â¹ stability of semigroups with respect to their generators. Quarterly of Applied Mathematics, 2005, 63, 509-526.	0.5	0
78	Relative entropy method for measure-valued solutions in natural sciences. Topological Methods in Nonlinear Analysis, 0, , 1.	0.2	0