Pierangelo A Marcati

List of Publications by Year
in descending order

87 papers	1,938 citations	257450 24 h-index	254184 43 g-index
94 all docs	94 docs citations	94 times ranked	447 citing authors

#	Article	IF	Citations
1	Fault shape effect on SH waves using finite element method. Journal of Seismology, 2022, 26, 417-437.	1.3	3
2	Dissipative martingale solutions of the stochastically forced Navierâ€“Stokesâ€“Poisson system on domains without boundary. Nonlinear Analysis: Real World Applications, 2021, 57, 103201.	1.7	1
3	Genuine Hydrodynamic Analysis to the 1-D QHD System: Existence, Dispersion and Stability. Communications in Mathematical Physics, 2021, 383, 2113-2161.	2.2	5
4	Linear stability analysis of the homogeneous Couette flow in a 2D isentropic compressible fluid. Annals of PDE, 2021, 7, 1.	1.8	14
5	Splash Singularities for a General Oldroyd Model with Finite Weissenberg Number. Archive for Rational Mechanics and Analysis, 2020, 235, 1589-1660.	2.4	3
6	Dispersive shocks in quantum hydrodynamics with viscosity. Physica D: Nonlinear Phenomena, 2020, 402, 132222.	2.8	7
7	Numerical investigations of dispersive shocks and spectral analysis for linearized quantum hydrodynamics. Applied Mathematics and Computation, 2020, 385, 125450.	2.2	5
8	A General 3D Model for Growth Dynamics of Sensory-Growth Systems: From Plants to Robotics. Frontiers in Robotics and AI, 2020, 7, 89.	3.2	17
9	On the Low Mach Number Limit for Quantum Navier–Stokes Equations. SIAM Journal on Mathematical Analysis, 2020, 52, 6105-6139.	1.9	8
10	Optimal control of plant root tip dynamics in soil. Bioinspiration and Biomimetics, 2020, 15, 056006.	2.9	10
11	Splash singularity for a free-boundary incompressible viscoelastic fluid model. Advances in Mathematics, 2020, 368, 107124.	1.1	2
12	Non-relativistic limit analysis of the Chandrasekharâ€“Thorne relativistic Euler equations with physical vacuum. Mathematical Models and Methods in Applied Sciences, 2019, 29, 531-579.	3.3	8
13	Stability for the quadratic derivative nonlinear SchrÃ¶dinger equation and applications to the Kortewegâ€“Kirchhoff type Euler equations for quantum hydrodynamics. Nonlinear Analysis: Theory, Methods & Applications, 2019, 186, 209-218.	1.1	2
14	A comparison of two mathematical models of the cerebrospinal fluid dynamics. Mathematical Biosciences and Engineering, 2019, 16, 2811-2851.	1.9	1
15	Analysis of solutions for a cerebrospinal fluid model. Nonlinear Analysis: Real World Applications, 2018, 44, 417-448.	1.7	6
16	Splash Singularity for a Free-Boundary Incompressible Viscoelastic Fluid Model. Springer Proceedings in Mathematics and Statistics, 2018, , 501-513.	0.2	3
17	The Cauchy Problem for the Maxwellâ€“SchrÃ¶dinger System with a Power-Type Nonlinearity. Springer Proceedings in Mathematics and Statistics, 2018, , 71-83.	0.2	0
18	Stationary solution for transient quantum hydrodynamics with bohmenian-type boundary conditions. Computational and Applied Mathematics, 2017, 36, 459-479.	1.3	9

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19	A model of synchronization over quantum networks. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 315101.	2.1	14
20	Splash singularities for a 2D Oldroyd-B model with nonlinear Piola-Kirchhoff stress. Nonlinear Differential Equations and Applications, 2017, 24, 1.	0.8	4
21	The Wigner-Lohe model for quantum synchronization and its emergent dynamics. Networks and Heterogeneous Media, 2017, 12, 403-416.	1.1	7
22	Nonlinear Maxwellâ€“SchrÃ¶dinger system and quantum magneto-hydrodynamics in $extsf{3-D}$. Communications in Mathematical Sciences, 2017, 15, 451-479.	1.0	7
23	Dispersive behaviour in the analysis of acoustic waves and plasma oscillations. Bulletin of the Brazilian Mathematical Society, 2016, 47, 291-305.	0.8	0
24	Low Mach number limit for the quantum hydrodynamics system. Research in Mathematical Sciences, 2016, 3, 1.	1.0	30
25	Quantum hydrodynamics with nonlinear interactions. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, 1-13.	1.1	3
26	Quasi-Neutral Limit, Dispersion, and Oscillations for Korteweg-Type Fluids. SIAM Journal on Mathematical Analysis, 2015, 47, 2265-2282.	1.9	22
27	Well/Ill Posedness for the Euler-Korteweg-Poisson System and Related Problems. Communications in Partial Differential Equations, 2015, 40, 1314-1335.	2.2	45
28	ASYMPTOTIC BEHAVIOR OF NONLINEAR SCHRÃ–DINGER SYSTEMS WITH LINEAR COUPLING. Journal of Hyperbolic Differential Equations, 2014, 11, 159-183.	0.5	7
29	The Quasineutral Limit for the Navier-Stokes-Fourier-Poisson System. Springer Proceedings in Mathematics and Statistics, 2014, , 193-206.	0.2	3
30	Steady states and interface transmission conditions for heterogeneous quantumâ€“classical 1-D hydrodynamic model of semiconductor devices. Physica D: Nonlinear Phenomena, 2013, 243, 1-13.	2.8	11
31	Incompressible Type Limit Analysis of a Hydrodynamic Model for Charge-Carrier Transport. SIAM Journal on Mathematical Analysis, 2013, 45, 915-933.	1.9	11
32	Analysis of Oscillations and Defect Measures for the Quasineutral Limit in Plasma Physics. Archive for Rational Mechanics and Analysis, 2012, 206, 159-188.	2.4	21
33	Low Mach Number Limit on Exterior Domains. Acta Mathematica Scientia, 2012, 32, 164-176.	1.0	2
34	The Quantum Hydrodynamics System in Two Space Dimensions. Archive for Rational Mechanics and Analysis, 2012, 203, 499-527.	2.4	61
35	Analysis of Quasineutral Limits. Series in Contemporary Applied Mathematics, 2012, , 390-397.	0.8	0
36	APPLICATION OF THE DIV-CURL LEMMA FOR MAXWELL'S EQUATIONS WITH NON-LINEAR CONDUCTIVITY. Journal of Hyperbolic Differential Equations, 2011, 08, 257-267.	0.5	1

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37	CONVERGENCE OF A BGK APPROXIMATION OF THE ISENTROPIC EULER EQUATIONS. Journal of Hyperbolic Differential Equations, 2011, 08, 233-255.	0.5	2
38	Finite Energy Weak Solutions to the Quantum Hydrodynamics System. The IMA Volumes in Mathematics and Its Applications, 2011, , 205-216.	0.5	0
39	Leray weak solutions of the incompressible Navier Stokes system on exterior domains via the artificial compressibility method. Indiana University Mathematics Journal, 2010, 59, 1831-1852.	0.9	14
40	On the Finite Energy Weak Solutions to a System in Quantum Fluid Dynamics. Communications in Mathematical Physics, 2009, 287, 657-686.	2.2	91
41	Preface II. Kinetic and Related Models, 2009, 2, v-vii.	0.9	1
42	A quasineutral type limit for the Navierâ€“Stokesâ€“Poisson system with large data. Nonlinearity, 2008, 21, 135-148.	1.4	72
43	Artificial Compressibility Approximation for the Incompressible Navierâ€“Stokes Equations on Unbounded Domain. , 2008, , 475-483.		0
44	A DISPERSIVE APPROACH TO THE ARTIFICIAL COMPRESSIBILITY APPROXIMATIONS OF THE NAVIERâ€“STOKES EQUATIONS IN 3D. Journal of Hyperbolic Differential Equations, 2006, 03, 575-588.	0.5	22
45	Convergence to the Barenblatt Solution for the Compressible Euler Equations with Damping and Vacuum. Archive for Rational Mechanics and Analysis, 2005, 176, 1-24.	2.4	113
46	Optimal Convergence Rates to Diffusion Waves for Solutions of the Hyperbolic Conservation Laws with Damping. Journal of Mathematical Fluid Mechanics, 2005, 7, S224-S240.	1.0	53
47	Convergence of singular limits for multi-D semilinear hyperbolic systems to parabolic systems. Transactions of the American Mathematical Society, 2004, 356, 2093-2121.	0.9	29
48	Existence and Asymptotic Behavior of Multi-Dimensional Quantum Hydrodynamic Model for Semiconductors. Communications in Mathematical Physics, 2004, 245, 215-247.	2.2	75
49	A Quasi-Neutral Limit in a Hydrodynamic Model for Charged Fluids. Monatshefte Fur Mathematik, 2003, 138, 189-208.	0.9	12
50	Global well-posedness and relaxation limits of a model for radiating gas. Journal of Differential Equations, 2003, 190, 439-465.	2.2	69
51	The Lpâ€“Lq estimates of solutions to one-dimensional damped wave equations and their application to the compressible flow through porous media. Journal of Differential Equations, 2003, 191, 445-469.	2.2	113
52	SINGULAR CONVERGENCE TO NONLINEAR DIFFUSION WAVES FOR SOLUTIONS TO THE CAUCHY PROBLEM FOR THE COMPRESSIBLE EULER EQUATIONS WITH DAMPING. Mathematical Models and Methods in Applied Sciences, 2002, 12, 1317-1336.	3.3	5
53	Singular Limits for Nonlinear Hyperbolic Systems. , 2002, , 79-96.		2
54	On the Diffusive Profiles for the System of Compressible Adiabatic Flow through Porous Media. SIAM Journal on Mathematical Analysis, 2001, 33, 790-826.	1.9	36

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55	The combined relaxation and vanishing Debye length limit in the hydrodynamic model for semiconductors. Mathematical Methods in the Applied Sciences, 2001, 24, 81-92.	2.3	38
56	A Vanishing Debye Length Limit in a Hydrodynamic Model for Semiconductors. , 2001, , 409-414.		2
57	Parabolic Relaxation of Semilinear Multidimensional Hyperbolic Systems. , 2001, , 307-316.		0
58	Hyperbolic to Parabolic Relaxation Theory for Quasilinear First Order Systems. Journal of Differential Equations, 2000, 162, 359-399.	2.2	73
59	Convergence to nonlinear diffusion waves for solutions of the initial boundary problem to the hyperbolic conservation laws with damping. Quarterly of Applied Mathematics, 2000, 58, 763-784.	0.7	49
60	Cauchy problem for compressible Euler equations with damping. , 2000, , 315-317.		1
61	The zero relaxation limit for 2Ã—2 hyperbolic systems. Nonlinear Analysis: Theory, Methods & Applications, 1999, 38, 375-389.	1.1	18
62	Evolution of hypersurfaces in $ {Bbb R}^N$ by Gaussian curvature. Nonlinear Differential Equations and Applications, 1999, 6, 119-132.	0.8	0
63	The relaxation to the drift-diffusion system for the 3-D isentropic Euler-Poisson model for semiconductors. Discrete and Continuous Dynamical Systems, 1999, 5, 449-455.	0.9	50
64	Global weak entropy solutions to quasilinear wave equations of Klein-Gordon and Sine-Gordon type. Journal of the Mathematical Society of Japan, 1998, 50, 433.	0.4	10
65	The Zero Relaxation Limit for the Hydrodynamic Whitham Traffic Flow Model. Journal of Differential Equations, 1997, 141, 150-178.	2.2	28
66	Weak solutions to a hydrodynamic model for semiconductors: the Cauchy problem. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1995, 125, 115-131.	1.2	71
67	Weak solutions to a hydrodynamic model for semiconductors and relaxation to the drift-diffusion equation. Archive for Rational Mechanics and Analysis, 1995, 129, 129-145.	2.4	184
68	Approximate solutions to first and second order quasilinear evolution equations via nonlinear viscosity. Transactions of the American Mathematical Society, 1994, 342, 501-521.	0.9	2
69	Convergence of the pseudo-viscosity approximation for conservation laws. Nonlinear Analysis: Theory, Methods & Applications, 1994, 23, 621-628.	1.1	12
70	Approximate Solutions to First and Second Order Quasilinear Evolution Equations via Nonlinear Viscosity. Transactions of the American Mathematical Society, 1994, 342, 501.	0.9	1
71	The one-dimensional Darcy's law as the limit of a compressible Euler flow. Journal of Differential Equations, 1990, 84, 129-147.	2.2	126
72	Fluid flow in macromolecular systems and related perturbation problems. Annales De La FacultÃ© Des Sciences De Toulouse, 1990, 11, 73-92.	0.3	0

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73	Singular convergence of weak solutions for a quasilinear nonhomogeneous hyperbolic system. Manuscripta Mathematica, 1988, 60, 49-69.	0.6	35
74	Approximate solutions to conservation laws via convective parabolic equations. Communications in Partial Differential Equations, 1988, 13, 321-344.	2.2	20
75	Nonhomogeneous quasilinear hyperbolic systems: Initial and boundary value problem. Lecture Notes in Mathematics, 1988, , 193-200.	0.2	0
76	Approximate Solutions to Conservation Laws Via Convective Parabolic Equations : Analytical and Numerical Results. , 1987, , 169-177.		0
77	Abstract stability theory and applications to hyperbolic equations with time dependent dissipative force fields. Computers and Mathematics With Applications, 1986, 12, 541-550.	2.7	3
78	Almost periodic solutions for a semilinear quasi-autonomous hyperbolic problem. Nonlinear Analysis: Theory, Methods & Applications, 1986, 10, 1053-1067.	1.1	1
79	On a nonconservative huyperbolic system describing the nonlinear age dependent populations growth. Computers and Mathematics With Applications, 1985, 11, 207-222.	2.7	1
80	Stability for second order abstract evolution equations. Nonlinear Analysis: Theory, Methods & Applications, 1984, 8, 237-252.	1.1	18
81	Decay and stability for nonlinear hyperbolic equations. Journal of Differential Equations, 1984, 55, 30-58.	2.2	21
82	Some considerations on the mathematical approach to nonlinear age dependent population dynamics. Computers and Mathematics With Applications, 1983, 9, 361-370.	2.7	6
83	SOME CONSIDERATIONS ON THE MATHEMATICAL APPROACH TO NONLINEAR AGE DEPENDENT POPULATION DYNAMICS. , 1983, , 361-369.		1
84	On the global stability of the logistic age-dependent population growth. Journal of Mathematical Biology, 1982, 15, 215-226.	1.9	28
85	ASYMPTOTIC BEHAVIOR OF THE RENEWAL EQUATION ARISING IN THE GURTIN POPULATION MODEL. , 1982, , 655-662.		2
86	Asymptotic Behavior in Age-Dependent Population Dynamics with Hereditary Renewal Law. SIAM Journal on Mathematical Analysis, 1981, 12, 904-916.	1.9	29
87	Global asymptotic stability for a vector disease model with spatial spread. Journal of Mathematical Biology, 1980, 9, 179-187.	1.9	32