Saleh Tanveer

List of Publications by Year
in descending order

62 papers	1,288 citations	331670 21 h-index	377865 34 g-index
63 all docs	63 docs citations	63 times ranked	493 citing authors

#	Article	IF	Citations
1	Surprises in viscous fingering. Journal of Fluid Mechanics, 2000, 409, 273-308.	3.4	119
2	The effect of surface tension on the shape of a Hele–Shaw cell bubble. Physics of Fluids, 1986, 29, 3537.	1.4	90
3	Analytic theory for the selection of a symmetric Saffman–Taylor finger in a Hele–Shaw cell. Physics of Fluids, 1987, 30, 1589.	1.4	89
4	On the formation of Moore curvature singularities in vortex sheets. Journal of Fluid Mechanics, 1999, 378, 233-267.	3.4	75
5	Time-evolving bubbles in two-dimensional Stokes flow. Journal of Fluid Mechanics, 1995, 301, 325-344.	3.4	59
6	New solutions for steady bubbles in a Hele–Shaw cell. Physics of Fluids, 1987, 30, 651.	1.4	58
7	Singular effects of surface tension in evolving Hele-Shaw flows. Journal of Fluid Mechanics, 1996, 323, 201-236.	3.4	50
8	The calculation of some Batchelor flows: The Sadovskii vortex and rotational corner flow. Physics of Fluids, 1988, 31, 978.	1.4	43
9	Analytic theory for the linear stability of the Saffman–Taylor finger. Physics of Fluids, 1987, 30, 2318.	1.4	42
10	A note on third–order structure functions in turbulence. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 1615-1635.	2.1	42
11	Singular Perturbation of Smoothly Evolving Hele-Shaw Solutions. Physical Review Letters, 1996, 76, 419-422.	7.8	35
12	Existence and uniqueness for a class of nonlinear higher-order partial differential equations in the complex plane. Communications on Pure and Applied Mathematics, 2000, 53, 1092-1117.	3.1	35
13	Stability of bubbles in a Hele–Shaw cell. Physics of Fluids, 1987, 30, 2624-2635.	1.4	34
14	Prandtl–Batchelor flow past a flat plate with a forward-facing flap. Journal of Fluid Mechanics, 1984, 143, 351-365.	3.4	30
15	Proof of the Dubrovin conjecture and analysis of the tritronquée solutions of PI. Duke Mathematical Journal, 2014, 163, .	1.5	29
16	A Theory of Exact Solutions for Annular Viscous Blobs. Journal of Nonlinear Science, 1998, 8, 375-400.	2.1	27
17	Analytic theory for the selection of a two-dimensional needle crystal at arbitrary Péclet number. Physical Review A, 1989, 40, 4756-4769.	2.5	24
18	Rigorous Results in Steady Finger Selection in Viscous Fingering. Archive for Rational Mechanics and Analysis, 2003, 166, 219-286.	2.4	23

#	ARTICLE	IF	CITATIONS
19	Analyticity and nonexistence of classical steady Hele-Shaw fingers. Communications on Pure and Applied Mathematics, 2003, 56, 353-402.	3.1	23
20	Bubble Breakup in Two-Dimensional Stokes Flow. Physical Review Letters, 1994, 73, 2845-2848.	7.8	22
21	A Theory of Exact Solutions for Plane Viscous Blobs. Journal of Nonlinear Science, 1998, 8, 261-279.	2.1	22
22	A Hele-Shaw problem and the second Painlevé transcendent. Mathematical Proceedings of the Cambridge Philosophical Society, 1998, 124, 169-191.	0.4	22
23	A Well-Posed Numerical Method to Track Isolated Conformal Map Singularities in Hele-Shaw Flow. Journal of Computational Physics, 1995, 120, 348-364.	3.8	18
24	Short Time Existence and Borel Summability in the Navier–Stokes Equation in $\mathbb{R}^3$. Communications in Partial Differential Equations, 2009, 34, 785-817.	2.2	18
25	Dendritic crystal growth for weak undercooling. Physical Review E, 1997, 56, 3068-3100.	2.1	14
26	Prediction of bubble velocity in a Hele–Shaw cell: Thin film and contact angle effects. Physics of Fluids A, Fluid Dynamics, 1989, 1, 219-223.	1.6	13
27	Global Existence for a Translating Near-Circular Hele–Shaw Bubble with Surface Tension. SIAM Journal on Mathematical Analysis, 2011, 43, 457-506.	1.9	12
28	Vortex Induced Lift on Two Dimensional Low Speed Wings. Studies in Applied Mathematics, 1984, 71, 65-78.	2.4	11
29	Infinite stream of Hele–Shaw bubbles. Physics of Fluids A, Fluid Dynamics, 1991, 3, 367-379.	1.6	11
30	Convection effects on radial segregation and crystal–melt interface in vertical Bridgman growth. Physics of Fluids, 1994, 6, 2270-2293.	4.0	11
31	A moving boundary model motivated by electric breakdown: II. Initial value problem. Physica D: Nonlinear Phenomena, 2010, 239, 1542-1559.	2.8	11
32	Global solutions for a two-phase Hele-Shaw bubble for a near-circular initial shape. Complex Variables and Elliptic Equations, 2012, 57, 23-61.	0.8	11
33	The Effect of Finiteness in the Saffman–Taylor Viscous Fingering Problem. Journal of Statistical Physics, 2004, 114, 1501-1536.	1.2	10
34	On a pair of interacting bubbles in planar Stokes flow. Journal of Fluid Mechanics, 2005, 541, 231.	3.4	10
35	Complex Singularity Analysis for a Nonlinear PDE. Communications in Partial Differential Equations, 2006, 31, 593-637.	2.2	10
36	Travelling wave states in pipe flow. Journal of Fluid Mechanics, 2016, 791, 284-328.	3.4	10

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37	A Steadily Translating Pair of Equal and Opposite Vortices with Vortex Sheets on Their Boundaries. Studies in Applied Mathematics, 1986, 74, 139-154.	2.4	9
38	Analytic theory for the determination of velocity and stability of bubbles in a Hele-Shaw cell. Theoretical and Computational Fluid Dynamics, 1989, 1, 135-163.	2.2	9
39	A moving boundary problem motivated by electric breakdown, I: Spectrum of linear perturbations. Physica D: Nonlinear Phenomena, 2009, 238, 888-901.	2.8	9
40	The effect of nonzero viscosity ratio on the stability of fingers and bubbles in a Hele–Shaw cell. Physics of Fluids, 1988, 31, 3188.	1.4	8
41	Singularities of the Euler equation and hydrodynamic stability. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1456-1465.	1.6	8
42	Bounds for second order structure functions and energy spectrum in turbulence. Physics of Fluids, 1999, 11, 2251-2256.	4.0	8
43	Semiclassical analysis of low and zero energy scattering for one-dimensional Schrödinger operators with inverse square potentials. Journal of Functional Analysis, 2008, 255, 2321-2362.	1.4	8
44	The stability of a two€dimensional rising bubble. Physics of Fluids, 1995, 7, 1292-1306.	4.0	7
45	Semiclassical Low Energy Scattering for One-Dimensional Schrödinger Operators with Exponentially Decaying Potentials. Annales Henri Poincare, 2012, 13, 1371-1426.	1.7	7
46	Dendritic crystal growth for weak undercooling. II. Surface energy effects on nonlinear evolution. Physical Review E, 1999, 59, 673-710.	2.1	6
47	Ionization of Coulomb Systems in $\mathbb{R}^3$ by Time Periodic Forcings of Arbitrary Size. Communications in Mathematical Physics, 2010, 296, 681-738.	2.2	5
48	Analysis and computations of a non-local thin-film model for two-fluid shear driven flows. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190367.	2.1	5
49	Vortex Induced Lift on a Flat Plate with a Curved Forward-Facing Flap. Studies in Applied Mathematics, 1985, 72, 173-187.	2.4	4
50	The Lifetime of Shape Oscillations of a Bubble in an Unbounded, Inviscid, and Compressible Fluid with Surface Tension. SIAM Journal on Mathematical Analysis, 2013, 45, 2924-2936.	1.9	4
51	Analytical Approximation of the Blasius Similarity Solution with Rigorous Error Bounds. SIAM Journal on Mathematical Analysis, 2014, 46, 3782-3813.	1.9	4
52	Nonlinear exact coherent structures in pipe flow and their instabilities. Journal of Fluid Mechanics, 2019, 868, 341-368.	3.4	4
53	Exact results for ionization of model atomic systems. Journal of Mathematical Physics, 2010, 51, 015211.	1.1	3
54	INTEGRAL FORMULATION OF 3D NAVIER€STOKES AND LONGER TIME EXISTENCE OF SMOOTH SOLUTIONS. Communications in Contemporary Mathematics, 2011, 13, 407-462.	1.2	3

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55	Hybrid basis scheme for computing electrostatic fields exterior to close-to-touching discs. IMA Journal of Numerical Analysis, 2016, 36, 743-769.	2.9	3
56	Nonlinear two-point boundary value problems: applications to a cholera epidemic model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190673.	2.1	3
57	Mathematical study of a system of multi-dimensional non-local evolution equations describing surfactant-laden two-fluid shear flows. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, .	2.1	2
58	Philip Geoffrey Saffman. 19 March 1931 â€" 17 August 2008. Biographical Memoirs of Fellows of the Royal Society, 2014, 60, 375-395.	0.1	1
59	Existence, uniqueness, analyticity, and Borel summability for Boussinesq equations. Journal of Differential Equations, 2015, 258, 3391-3434.	2.2	0
60	Analysis of 2 + 1 diffusiveâ€"dispersive PDE arising in river braiding. European Journal of Applied Mathematics, 2016, 27, 756-780.	2.9	0
61	Rigorous analytical approximation of tritronquÃ©e solution to PainlevÃ©-I and the first singularity. Journal of Differential Equations, 2016, 261, 3843-3863.	2.2	0
62	Centre modes in pipe flow. IMA Journal of Applied Mathematics, 2019, 84, 854-872.	1.6	0