Inwon C Kim

List of Publications by Year
in descending order

48 papers	593 citations	759233 12 h-index	713466 21 g-index
48 all docs	48 docs citations	48 times ranked	191 citing authors

#	Article	IF	Citations
1	Uniqueness and Existence Results on the Hele-Shaw and the Stefan Problems. Archive for Rational Mechanics and Analysis, 2003, 168, 299-328.	2.4	89
2	The Patlakâ€“Kellerâ€“Segel Model and Its Variations: Properties of Solutions via Maximum Principle. SIAM Journal on Mathematical Analysis, 2012, 44, 568-602.	1.9	52
3	Quasi-static evolution and congested crowd transport. Nonlinearity, 2014, 27, 823-858.	1.4	32
4	Porous medium equation to Hele-Shaw flow with general initial density. Transactions of the American Mathematical Society, 2017, 370, 873-909.	0.9	26
5	Regularity for the one-phase Hele-Shaw problem from a Lipschitz initial surface. American Journal of Mathematics, 2007, 129, 527-582.	1.1	22
6	Congested Aggregation via Newtonian Interaction. Archive for Rational Mechanics and Analysis, 2018, 227, 1-67.	2.4	21
7	Global Existence and Uniqueness of Solutions to a Model of Price Formation. SIAM Journal on Mathematical Analysis, 2009, 41, 2107-2135.	1.9	18
8	A variational approach to a quasi-static droplet model. Calculus of Variations and Partial Differential Equations, 2011, 41, 1-19.	1.7	18
9	Viscosity Solutions for the Two-Phase Stefan Problem. Communications in Partial Differential Equations, 2011, 36, 42-66.	2.2	17
10	Degenerate diffusion with a drift potential: A viscosity solutions approach. Discrete and Continuous Dynamical Systems, 2010, 27, 767-786.	0.9	15
11	Regularity of the free boundary for the one phase Heleâ€“Shaw problem. Journal of Differential Equations, 2006, 223, 161-184.	2.2	14
12	On nonlinear cross-diffusion systems: an optimal transport approach. Calculus of Variations and Partial Differential Equations, 2018, 57, 1.	1.7	13
13	Homogenization for nonlinear PDEs in general domains with oscillatory Neumann boundary data. Journal Des Mathematiques Pures Et Appliquees, 2014, 102, 419-448.	1.6	12
14	Weak Solutions to the Muskat Problem with Surface Tension Via Optimal Transport. Archive for Rational Mechanics and Analysis, 2021, 239, 389-430.	2.4	12
15	Homogenization of a Heleâ€“Shaw Problem in Periodic and Random Media. Archive for Rational Mechanics and Analysis, 2009, 194, 507-530.	2.4	11
16	An Aggregation Equation with Degenerate Diffusion: Qualitative Property of Solutions. SIAM Journal on Mathematical Analysis, 2013, 45, 2995-3018.	1.9	11
17	A free boundary problem arising in flame propagation. Journal of Differential Equations, 2003, 191, 470-489.	2.2	10
18	Nonlinear Ellipticâ€“Parabolic Problems. Archive for Rational Mechanics and Analysis, 2013, 210, 975-1020.	2.4	10

#	Article	IF	Citations
19	Free boundary problems for tumor growth: A viscosity solutions approach. Nonlinear Analysis: Theory, Methods & Applications, 2016, 138, 207-228.	1.1	10
20	Regularity Properties of Degenerate Diffusion Equations with Drifts. SIAM Journal on Mathematical Analysis, 2018, 50, 4371-4406.	1.9	10
21	On mean curvature flow with forcing. Communications in Partial Differential Equations, 2020, 45, 414-455.	2.2	10
22	Volume preserving mean curvature flow for star-shaped sets. Calculus of Variations and Partial Differential Equations, 2020, 59, 1.	1.7	10
23	Homogenization of the Free Boundary Velocity. Archive for Rational Mechanics and Analysis, 2007, 185, 69-103.	2.4	9
24	Homogenization of a Model Problem on Contact Angle Dynamics. Communications in Partial Differential Equations, 2008, 33, 1235-1271.	2.2	9
25	A Hele-Shaw Limit Without Monotonicity. Archive for Rational Mechanics and Analysis, 2022, 243, 829-868.	2.4	9
26	The one-phase Hele-Shaw problem with singularities. Journal of Geometric Analysis, 2005, 15, 641-667.	1.0	8
27	Homogenization of Neumann boundary data with fully nonlinear operator. Analysis and PDE, 2013, 6, 951-972.	1.4	8
28	Liquid drops sliding down an inclined plane. Transactions of the American Mathematical Society, 2014, 366, 6119-6150.	0.9	8
29	Dynamic Stability of Equilibrium Capillary Drops. Archive for Rational Mechanics and Analysis, 2014, 211, 819-878.	2.4	8
30	Singular limit of the porous medium equation with a drift. Advances in Mathematics, 2019, 349, 682-732.	1.1	8
31	Viscosity solutions for a model of contact line motion. Interfaces and Free Boundaries, 2009, 11, 37-60.	0.8	8
32	Uniform convergence for the incompressible limit of a tumor growth model. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2018, 35, 1321-1354.	1.4	7
33	Waiting time phenomena of the Hele-Shaw and the Stefan problem. Indiana University Mathematics Journal, 2006, 55, 525-552.	0.9	7
34	Local regularization of the one-phase Hele-Shaw flow. Indiana University Mathematics Journal, 2009, 58, 2765-2804.	0.9	7
35	A Two-Sided Contracting Stefan Problem. Communications in Partial Differential Equations, 2008, 33, 2225-2256.	2.2	6
36	Homogenization of one-phase Stefan-type problems in periodic and random media. Transactions of the American Mathematical Society, 2010, 362, 4161-4190.	0.9	6

#	Article	IF	Citations
37	Liquid Drops on a Rough Surface. Communications on Pure and Applied Mathematics, 2018, 71, 2429-2499.	3.1	6
38	Darcyâ€™s Law with a Source Term. Archive for Rational Mechanics and Analysis, 2021, 239, 1349-1393.	2.4	5
39	Porous Medium Equation with a Drift: Free Boundary Regularity. Archive for Rational Mechanics and Analysis, 2021, 242, 1177-1228.	2.4	5
40	A Free Boundary Problem with Curvature. Communications in Partial Differential Equations, 2005, 30, 121-138.	2.2	4
41	Long time regularity of solutions of the Heleâ€“Shaw problem. Nonlinear Analysis: Theory, Methods & Applications, 2006, 64, 2817-2831.	1.1	4
42	Quasistatic Droplets in Randomly Perforated Domains. Archive for Rational Mechanics and Analysis, 2015, 215, 211-281.	2.4	4
43	Quantitative homogenization of elliptic partial differential equations with random oscillatory boundary data. Journal Des Mathematiques Pures Et Appliquees, 2015, 103, 958-1002.	1.6	4
44	The two-phase Stefan problem: regularization near Lipschitz initial data by phase dynamics. Analysis and PDE, 2012, 5, 1063-1103.	1.4	3
45	On volume-preserving crystalline mean curvature flow. Mathematische Annalen, 2022, 384, 1-42.	1.4	3
46	Error estimates on homogenization of free boundary velocities in periodic media. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2009, 26, 999-1019.	1.4	2
47	Head and Tail Speeds of Mean Curvature Flow with Forcing. Archive for Rational Mechanics and Analysis, 2020, 235, 287-354.	2.4	2
48	Homogenization and error estimates of free boundary velocities in periodic media. Applicable Analysis, 2012, 91, 1177-1187.	1.3	0