FranÃ§ois Hamel

List of Publications by Year
in descending order

63	3,145	186265 28	155660 55
papers	citations	h-index	g-index

64	64	64	724
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Front propagation in periodic excitable media. Communications on Pure and Applied Mathematics, 2002, 55, 949-1032.	3.1	290
2	Analysis of the periodically fragmented environment model : I â€“ Species persistence. Journal of Mathematical Biology, 2005, 51, 75-113.	1.9	234
3	Travelling Fronts and Entire SolutionsÂ¶of the Fisher-KPP Equation in â„N. Archive for Rational Mechanics and Analysis, 2001, 157, 91-163.	2.4	181
4	Analysis of the periodically fragmented environment model: IIâ€”biological invasions and pulsating travelling fronts. Journal Des Mathematiques Pures Et Appliquees, 2005, 84, 1101-1146.	1.6	174
5	Allee effect promotes diversity in traveling waves of colonization. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8828-8833.	7.1	150
6	Generalized Transition Waves and Their Properties. Communications on Pure and Applied Mathematics, 2012, 65, 592-648.	3.1	119
7	Asymptotic spreading in heterogeneous diffusive excitable media. Journal of Functional Analysis, 2008, 255, 2146-2189.	1.4	114
8	Qualitative properties of monostable pulsating fronts: exponential decay and monotonicity. Journal Des Mathematiques Pures Et Appliquees, 2008, 89, 355-399.	1.6	110
9	Elliptic Eigenvalue Problems with Large Drift and Applications to Nonlinear Propagation Phenomena. Communications in Mathematical Physics, 2005, 253, 451-480.	2.2	102
10	The speed of propagation for KPP type problems. II: General domains. Journal of the American Mathematical Society, 2010, 23, 1-34.	3.9	98
11	Liouville-type results for semilinear elliptic equations in unbounded domains. Annali Di Matematica Pura Ed Applicata, 2007, 186, 469.	1.0	92
12	Existence and qualitative properties of multidimensional conical bistable fronts. Discrete and Continuous Dynamical Systems, 2005, 13, 1069-1096.	0.9	91
13	Bistable traveling waves around an obstacle. Communications on Pure and Applied Mathematics, 2009, 62, 729-788.	3.1	89
14	Uniqueness and stability properties of monostable pulsating fronts. Journal of the European Mathematical Society, 2010, 13, 345-390.	1.4	83
15	Fast propagation for KPP equations with slowly decaying initial conditions. Journal of Differential Equations, 2010, 249, 1726-1745.	2.2	82
16	A short proof of the logarithmic Bramson correction in Fisher-KPP equations. Networks and Heterogeneous Media, 2013, 8, 275-289.	1.1	82
17	Front propagation for discrete periodic monostable equations. Mathematische Annalen, 2006, 335, 489-525.	1.4	64
18	Existence of Nonplanar Solutions of a Simple Model of Premixed Bunsen Flames. SIAM Journal on Mathematical Analysis, 1999, 31, 80-118.	1.9	61

#	Article	IF	Citations
19	On the nonlocal Fisherâ€“KPP equation: steady states, spreading speed and global bounds. Nonlinearity, 2014, 27, 2735-2753.	1.4	60
20	Stability of travelling waves in a model for conical flames in two space dimensions. Annales Scientifiques De L'Ecole Normale Superieure, 2004, 37, 469-506.	0.8	54
21	Mathematical analysis of the optimal habitat configurations for species persistence. Mathematical Biosciences, 2007, 210, 34-59.	1.9	50
22	Traveling waves with paraboloid like interfaces for balanced bistable dynamics. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2007, 24, 369-393.	1.4	49
23	Inside dynamics of pulled and pushed fronts. Journal Des Mathematiques Pures Et Appliquees, 2012, 98, 428-449.	1.6	46
24	Traveling waves for a lattice dynamical system arising in a diffusive endemic model. Nonlinearity, 2017, 30, 2334-2359.	1.4	43
25	Bistable transition fronts in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi mathvariant="double-struck">R</mml:mi></mml:mrow><mml:mrow><mml:mi>N</mml:mi></mml:mrow></mml:msup></mml:math> Advances in Mathematics, 2016, 289, 279-344.	1.1	42
26	Quenching and Propagation in KPP Reaction-Diffusion Equations with a Heat Loss. Archive for Rational Mechanics and Analysis, 2005, 178, 57-80.	2.4	39
27	Rearrangement inequalities and applications to isoperimetric problems for eigenvalues. Annals of Mathematics, 2011, 174, 647-755.	4.2	31
28	Success rate of a biological invasion in terms of the spatial distribution of the founding population. Bulletin of Mathematical Biology, 2012, 74, 453-473.	1.9	29
29	Spreading Properties and Complex Dynamics for Monostable Reactionâ€“Diffusion Equations. Communications in Partial Differential Equations, 2012, 37, 511-537.	2.2	26
30	Transition fronts for the Fisher-KPP equation. Transactions of the American Mathematical Society, 2016, 368, 8675-8713.	0.9	26
31	Spreading Speeds in Slowly Oscillating Environments. Bulletin of Mathematical Biology, 2010, 72, 1166-1191.	1.9	25
32	The logarithmic delay of KPP fronts in a periodic medium. Journal of the European Mathematical Society, 2016, 18, 465-505.	1.4	25
33	Two-dimensional curved fronts in a periodic shear flow. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 6469-6486.	1.1	24
34	Transition fronts for periodic bistable reaction-diffusion equations. Calculus of Variations and Partial Differential Equations, 2015, 54, 2517-2551.	1.7	24
35	Formules min-max pour les vitesses d'ondes progressives multidimensionnelles. Annales De La FacultÃ© Des Sciences De Toulouse, 1999, 8, 259-280.	0.3	23
36	Admissible speeds of transition fronts for nonautonomous monostable equations. SIAM Journal on Mathematical Analysis, 2015, 47, 3342-3392.	1.9	20

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37	Convexity of level sets for elliptic problems in convex domains or convex rings: Two counterexamples. American Journal of Mathematics, 2016, 138, 499-527.	1.1	19
38	Reaction-diffusion problems in cylinders with no invariance by translation. Part II: Monotone perturbations. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 1997, 14, 555-596.	1.4	17
39	On the mean speed of bistable transition fronts in unbounded domains. Journal Des Mathematiques Pures Et Appliquees, 2020, 136, 92-157.	1.6	16
40	One-dimensional symmetry and Liouville type results for the fourth order Allen-Cahn equation in â„•. Chinese Annals of Mathematics Series B, 2017, 38, 149-172.	0.4	13
41	Mathematical Properties of a Class of Integro-differential Models from Population Genetics. SIAM Journal on Applied Mathematics, 2017, 77, 1536-1561.	1.8	13
42	An isoperimetric inequality for the principal eigenvalue of the Laplacian with drift. Comptes Rendus Mathematique, 2005, 340, 347-352.	0.3	12
43	Propagation in a Fisher-KPP equation with non-local advection. Journal of Functional Analysis, 2020, 278, 108426.	1.4	12
44	Shear Flows of an Ideal Fluid and Elliptic Equations in Unbounded Domains. Communications on Pure and Applied Mathematics, 2017, 70, 590-608.	3.1	11
45	Reaction-diffusion problems in cylinders with no invariance by translation. Part I: Small perturbations. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 1997, 14, 457-498.	1.4	10
46	Non-adiabatic KPP fronts with an arbitrary Lewis number. Nonlinearity, 2005, 18, 2881-2902.	1.4	10
47	Speed-up of combustion fronts in shear flows. Mathematische Annalen, 2013, 356, 845-867.	1.4	10
48	Liouville type results for a nonlocal obstacle problem. Proceedings of the London Mathematical Society, 2019, 119, 291-328.	1.3	10
49	Gradient Estimates for Elliptic Regularizations of Semilinear Parabolic and Degenerate Elliptic Equations. Communications in Partial Differential Equations, 2005, 30, 139-156.	2.2	9
50	Traveling Fronts for the Thermo-Diffusive System with Arbitrary Lewis Numbers. Archive for Rational Mechanics and Analysis, 2010, 195, 923-952.	2.4	9
51	Propagation and Blocking in Periodically Hostile Environments. Archive for Rational Mechanics and Analysis, 2012, 204, 945-975.	2.4	9
52	Spreading Speeds for Some Reaction-Diffusion Equations with General Initial Conditions. SIAM Journal on Mathematical Analysis, 2010, 42, 2872-2911.	1.9	7
53	A Liouville Theorem for the Euler Equations in the Plane. Archive for Rational Mechanics and Analysis, 2019, 233, 599-642.	2.4	7
54	Persistence and propagation in periodic reaction-diffusion models. Tamkang Journal of Mathematics, 2014, 45, 217-228.	0.3	6

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55	Monotonicity of Bistable Transition Fronts in â„N. Journal of Elliptic and Parabolic Equations, 2016, 2, 145-155.	0.9	5
56	Adaptation in a heterogeneous environment I: persistence versus extinction. Journal of Mathematical Biology, 2021, 83, 14.	1.9	4
57	Comparison results and improved quantified inequalities for semilinear elliptic equations. Mathematische Annalen, 2017, 367, 311-372.	1.4	3
58	When the Allee threshold is an evolutionary trait: Persistence vs. extinction. Journal Des Mathematiques Pures Et Appliquees, 2021, 155, 155-191.	1.6	3
59	Extinction Versus Persistence in Strong Oscillating Flows. Archive for Rational Mechanics and Analysis, 2010, 195, 205-223.	2.4	2
60	The Harnack Inequality for a Class of Degenerate Elliptic Operators. International Mathematics Research Notices, 2013, 2013, 3732-3743.	1.0	1
61	Sharp thresholds between finite spread and uniform convergence for a reactionâ€“diffusion equation with oscillating initial data. Journal of Differential Equations, 2017, 262, 1461-1498.	2.2	1
62	Optimization of some eigenvalue problems with large drift. Communications in Partial Differential Equations, 2018, 43, 945-964.	2.2	1
63	Large time monotonicity of solutions of reactionâ€“diffusion equations in RN. Journal Des Mathematiques Pures Et Appliquees, 2018, 112, 89-117.	1.6	0