

# Marco Antonio Fontelos

## List of Publications by Year in descending order

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55  
papers

1,758  
citations

331259

21  
h-index

264894

42  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1371  
citing authors

#	ARTICLE	IF	CITATIONS
1	Drop dynamics after impact on a solid wall: Theory and simulations. <i>Physics of Fluids</i> , 2010, 22, .	1.6	326
2	The beads-on-string structure of viscoelastic threads. <i>Journal of Fluid Mechanics</i> , 2006, 556, 283.	1.4	222
3	The role of self-similarity in singularities of partial differential equations. <i>Nonlinearity</i> , 2009, 22, R1-R44.	0.6	118
4	Spreading dynamics of drop impacts. <i>Journal of Fluid Mechanics</i> , 2012, 713, 50-60.	1.4	111
5	Drop dynamics on the beads-on-string structure for viscoelastic jets: A numerical study. <i>Physics of Fluids</i> , 2003, 15, 922-937.	1.6	101
6	Mathematical Analysis of a Model for the Initiation of Angiogenesis. <i>SIAM Journal on Mathematical Analysis</i> , 2002, 33, 1330-1355.	0.9	96
7	Formation of singularities for a transport equation with nonlocal velocity. <i>Annals of Mathematics</i> , 2005, 162, 1377-1389.	2.1	87
8	Evidence of singularities for a family of contour dynamics equations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 5949-5952.	3.3	81
9	Finite time singularities in a 1D model of the quasi-geostrophic equation. <i>Advances in Mathematics</i> , 2005, 194, 203-223.	0.5	71
10	On the evolution and rupture of filaments in Giesekus and FENE models. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2004, 118, 1-16.	1.0	54
11	Time Decay of Scaling Critical Electromagnetic Schrödinger Flows. <i>Communications in Mathematical Physics</i> , 2013, 324, 1033-1067.	1.0	42
12	The microfluidic Kelvin water dropper. <i>Lab on A Chip</i> , 2013, 13, 4503.	3.1	36
13	Capillarity driven spreading of power-law fluids. <i>Applied Mathematics Letters</i> , 2003, 16, 1315-1320.	1.5	35
14	Symmetry-Breaking Bifurcations of Charged Drops. <i>Archive for Rational Mechanics and Analysis</i> , 2004, 172, 267-294.	1.1	35
15	Mechanism of Branching in Negative Ionization Fronts. <i>Physical Review Letters</i> , 2005, 95, 165001.	2.9	34
16	Integral inequalities for the Hilbert transform applied to a nonlocal transport equation. <i>Journal Des Mathematiques Pures Et Appliquees</i> , 2006, 86, 529-540.	0.8	31
17	Fingering from Ionization Fronts in Plasmas. <i>SIAM Journal on Applied Mathematics</i> , 2008, 68, 1122-1145.	0.8	23
18	Healing capillary films. <i>Journal of Fluid Mechanics</i> , 2018, 838, 404-434.	1.4	23

#	ARTICLE	IF	CITATIONS
19	Flower Patterns in Drop Impact on Thin Liquid Films. <i>Physical Review Letters</i> , 2010, 105, 184503.	2.9	22
20	Stationary Non-Newtonian Fluid Flows in Channel-like and Pipe-like Domains. <i>Archive for Rational Mechanics and Analysis</i> , 2000, 151, 1-43.	1.1	21
21	Time Decay of Scaling Invariant Electromagnetic Schrödinger Equations on the Plane. <i>Communications in Mathematical Physics</i> , 2015, 337, 1515-1533.	1.0	21
22	On higher-dimensional singularities for the fractional Yamabe problem: A nonlocal Mazzeo-Pacard program. <i>Duke Mathematical Journal</i> , 2019, 168, .	0.8	21
23	Isolated inertialess drops cannot break up. <i>Journal of Fluid Mechanics</i> , 2005, 530, 177-180.	1.4	18
24	Discrete Self-Similarity in Interfacial Hydrodynamics and the Formation of Iterated Structures. <i>Physical Review Letters</i> , 2018, 120, 034505.	2.9	17
25	Photoionization effects in ionization fronts. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 5176-5182.	1.3	15
26	Ionization fronts in negative corona discharges. <i>Physical Review E</i> , 2005, 71, 037401.	0.8	13
27	Universality in the nonlinear leveling of capillary films. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	10
28	Power laws and self-similar behaviour in negative ionization fronts. <i>Journal of Physics A</i> , 2006, 39, 7561-7578.	1.6	9
29	A PDE model for the dynamics of trail formation by ants. <i>Journal of Mathematical Analysis and Applications</i> , 2015, 425, 1-19.	0.5	8
30	The flow of a class of Oldroyd fluids around a re-entrant corner. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2000, 95, 185-198.	1.0	6
31	Self-similar solutions of the second kind representing gelation in finite time for the Smoluchowski equation. <i>Nonlinearity</i> , 2014, 27, 1709-1745.	0.6	6
32	On the structure of double layers in Poisson-Boltzmann equation. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2012, 17, 1939-1967.	0.5	5
33	Capillary oscillations at the exit of a nozzle. <i>IMA Journal of Applied Mathematics</i> , 2015, 80, 931-962.	0.8	5
34	ANALYSIS OF THE STICK-SLIP PROBLEM FOR NON-NEWTONIAN FLOWS. <i>Communications in Partial Differential Equations</i> , 2001, 26, 461-536.	1.0	4
35	On the evolution of thin viscous jets: filament formation. <i>Mathematical Methods in the Applied Sciences</i> , 2004, 27, 1197-1220.	1.2	3
36	Arrays, Fontelos, and Trueba Reply:. <i>Physical Review Letters</i> , 2008, 101, .	2.9	3

#	ARTICLE	IF	CITATIONS
37	A Stable Self-Similar Singularity of Evaporating Drops: Ellipsoidal Collapse to a Point. Archive for Rational Mechanics and Analysis, 2015, 217, 373-411.	1.1	3
38	A nonlocal diffusion problem on manifolds. Communications in Partial Differential Equations, 2018, 43, 652-676.	1.0	3
39	Frequency-dependent time decay of Schrödinger flows. Journal of Spectral Theory, 2018, 8, 509-521.	0.4	3
40	Drops: The collapse of capillary jets. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11006-11007.	3.3	2
41	Stability, Instability, and Bifurcation in Electrified Thin Films. SIAM Journal on Mathematical Analysis, 2016, 48, 2730-2782.	0.9	2
42	The contact line of an evaporating droplet over a solid wedge and the pinned–unpinned transition. Journal of Fluid Mechanics, 2016, 791, 519-538.	1.4	2
43	A note on the self-similar solutions to the spontaneous fragmentation equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160740.	1.0	2
44	Asymptotic decay and non-rupture of viscous sheets. Zeitschrift Fur Angewandte Mathematik Und Physik, 2018, 69, 1.	0.7	2
45	A Mathematical Study of the Ice Flow Behavior in a Neighborhood of the Grounding Line. Pure and Applied Geophysics, 2008, 165, 1603-1618.	0.8	1
46	The ice flow behavior in the neighborhood of the grounding line. Non-Newtonian case. Nonlinear Analysis: Real World Applications, 2010, 11, 2350-2365.	0.9	1
47	Capillary oscillations at a circular orifice. Applied Mathematics Letters, 2013, 26, 559-565.	1.5	1
48	Discrete self-similarity in the formation of satellites for viscous cavity break up. Physical Review Fluids, 2021, 6, .	1.0	1
49	The structure of the quiescent core in rigidly rotating spirals in a class of excitable systems. Discrete and Continuous Dynamical Systems - Series B, 2012, 17, 1605-1638.	0.5	1
50	The vanishing surface tension limit for the Hele-Shaw problem. Discrete and Continuous Dynamical Systems - Series B, 2016, 21, 3479-3514.	0.5	1
51	Analytical Estimates of the Dispersion Curve in Planar Ionization Fronts. , 2009, , .		0
52	Numerical simulation of the shape of charged drops over a solid surface. IOP Conference Series: Materials Science and Engineering, 2010, 10, 012241.	0.3	0
53	Variational approach to powder-binder separation in Poiseuille and Couette flows. Physics of Fluids, 2017, 29, 033102.	1.6	0
54	Capillary Oscillations of Drops on a Fan-Shaped Pillar. Journal of Mathematical Fluid Mechanics, 2017, 19, 255-282.	0.4	0

#	ARTICLE	IF	CITATIONS
55	Lateral instability in a discharge channel. Chaos, Solitons and Fractals, 2021, 147, 111001.	2.5	0