

# Santiago Madruga

## List of Publications by Year in descending order

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Version: 2024-02-01

30  
papers

753  
citations

567281

15  
h-index

580821

25  
g-index

30  
all docs

30  
docs citations

30  
times ranked

600  
citing authors

#	ARTICLE	IF	CITATIONS
1	Discovery of a Low-Mass Brown Dwarf Companion of the Young Nearby Star G 196-3&nbsp;, 1998, 282, 1309-1312.		128
2	Multiple attractors, long chaotic transients, and failure in small-world networks of excitable neurons. Chaos, 2007, 17, 026110.	2.5	59
3	Decomposition driven interface evolution for layers of binary mixtures. I. Model derivation and stratified base states. Physics of Fluids, 2007, 19, .	4.0	57
4	Heat transfer performance and melting dynamic of a phase change material subjected to thermocapillary effects. International Journal of Heat and Mass Transfer, 2017, 109, 501-510.	4.8	53
5	Melting dynamics of a phase change material (PCM) with dispersed metallic nanoparticles using transport coefficients from empirical and mean field models. Applied Thermal Engineering, 2017, 124, 1123-1133.	6.0	46
6	Dynamic of plumes and scaling during the melting of a Phase Change Material heated from below. International Journal of Heat and Mass Transfer, 2018, 126, 206-220.	4.8	40
7	Enhancement of heat transfer rate on phase change materials with thermocapillary flows. European Physical Journal: Special Topics, 2017, 226, 1169-1176.	2.6	39
8	Convective instabilities in two superposed horizontal liquid layers heated laterally. Physical Review E, 2003, 68, 041607.	2.1	36
9	Modeling of enhanced micro-energy harvesting of thermal ambient fluctuations with metallic foams embedded in Phase Change Materials. Renewable Energy, 2021, 168, 424-437.	8.9	35
10	Experimental and numerical study of melting of the phase change material tetracosane. International Communications in Heat and Mass Transfer, 2018, 98, 163-170.	5.6	34
11	Decomposition driven interface evolution for layers of binary mixtures. II. Influence of convective transport on linear stability. Physics of Fluids, 2009, 21, .	4.0	30
12	Homology and symmetry breaking in Rayleigh-BÃ©nard convection: Experiments and simulations. Physics of Fluids, 2007, 19, 117105.	4.0	27
13	Instabilities in two-liquid layers subject to a horizontal temperature gradient. Theoretical and Computational Fluid Dynamics, 2004, 18, 277-284.	2.2	21
14	Introducing a new concept for enhanced micro-energy harvesting of thermal fluctuations through the Marangoni effect. Applied Energy, 2022, 306, 117966.	10.1	17
15	Heat transfer performance and thermal energy storage in nano-enhanced phase change materials driven by thermocapillarity. International Communications in Heat and Mass Transfer, 2021, 129, 105672.	5.6	17
16	EFFECT OF A VARIABLE DELAY IN DELAYED DYNAMICAL SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 2875-2880.	1.7	16
17	Re-entrant hexagons in non-Boussinesq convection. Journal of Fluid Mechanics, 2006, 548, 341.	3.4	14
18	Thermoelectric energy harvesting in aircraft with porous phase change materials. IOP Conference Series: Earth and Environmental Science, 2019, 354, 012123.	0.3	12

#	ARTICLE	IF	CITATIONS
19	Hexagons and spiral defect chaos in non-Boussinesq convection at low Prandtl numbers. <i>Physical Review E</i> , 2007, 75, 026210.	2.1	11
20	Hydrothermal waves and corotating rolls in laterally heated convection in simple liquids. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2004, 29, .	4.2	10
21	Geometric diagnostics of complex patterns: Spiral defect chaos. <i>Chaos</i> , 2006, 16, 013125.	2.5	10
22	Defect Chaos and Bursts: Hexagonal Rotating Convection and the Complex Ginzburg-Landau Equation. <i>Physical Review Letters</i> , 2006, 96, 074501.	7.8	10
23	Scaling laws during melting driven by thermocapillarity. <i>International Journal of Heat and Mass Transfer</i> , 2020, 163, 120462.	4.8	10
24	Effect of the inclination angle on the transient melting dynamics and heat transfer of a phase change material. <i>Physics of Fluids</i> , 2021, 33, .	4.0	9
25	Efficient Thermoelectric Transformation of Daily Thermal Fluctuations into Electricity. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 701, 012082.	0.3	4
26	HEXAGONAL PATTERNS IN A MODEL FOR ROTATING CONVECTION. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2004, 14, 107-117.	1.7	3
27	Convective instabilities in films of binary mixtures. <i>European Physical Journal: Special Topics</i> , 2011, 192, 101-108.	2.6	2
28	Reentrant and whirling hexagons in non-Boussinesq convection. <i>European Physical Journal: Special Topics</i> , 2007, 146, 279-290.	2.6	1
29	Two-dimensional steady states in off-critical mixtures with high interface tension. <i>European Physical Journal: Special Topics</i> , 2013, 219, 3-12.	2.6	1
30	Free surface liquid films of binary mixtures. Two-dimensional steady structures at off-critical compositions. <i>Physics of Fluids</i> , 2016, 28, 032108.	4.0	1