Santiago Madruga

List of Publications by Year
in descending order

30 papers	753 citations	643344 15 h-index	651938 25 g-index
30 all docs	30 docs citations	30 times ranked	674 citing authors

#	Article	IF	Citations
1	Introducing a new concept for enhanced micro-energy harvesting of thermal fluctuations through the Marangoni effect. Applied Energy, 2022, 306, 117966.	5.1	17
2	Efficient Thermoelectric Transformation of Daily Thermal Fluctuations into Electricity. IOP Conference Series: Earth and Environmental Science, 2021, 701, 012082.	0.2	4
3	Effect of the inclination angle on the transient melting dynamics and heat transfer of a phase change material. Physics of Fluids, 2021, 33, .	1.6	9
4	Modeling of enhanced micro-energy harvesting of thermal ambient fluctuations with metallic foams embedded in Phase Change Materials. Renewable Energy, 2021, 168, 424-437.	4.3	35
5	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.	2.9	17
6	Scaling laws during melting driven by thermocapillarity. International Journal of Heat and Mass Transfer, 2020, 163, 120462.	2.5	10
7	Thermoelectric energy harvesting in aircraft with porous phase change materials. IOP Conference Series: Earth and Environmental Science, 2019, 354, 012123.	0.2	12
8	Experimental and numerical study of melting of the phase change material tetracosane. International Communications in Heat and Mass Transfer, 2018, 98, 163-170.	2.9	34
9	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.	2.5	40
10	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.	2.5	53
11	Enhancement of heat transfer rate on phase change materials with thermocapillary flows. European Physical Journal: Special Topics, 2017, 226, 1169-1176.	1.2	39
12	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.	3.0	46
13	Free surface liquid films of binary mixtures. Two-dimensional steady structures at off-critical compositions. Physics of Fluids, 2016, 28, 032108.	1.6	1
14	Two-dimensional steady states in off-critical mixtures with high interface tension. European Physical Journal: Special Topics, 2013, 219, 3-12.	1.2	1
15	Convective instabilities in films of binary mixtures. European Physical Journal: Special Topics, 2011, 192, 101-108.	1.2	2
16	Decomposition driven interface evolution for layers of binary mixtures. II. Influence of convective transport on linear stability. Physics of Fluids, 2009, 21, .	1.6	30
17	Hexagons and spiral defect chaos in non-Boussinesq convection at low Prandtl numbers. Physical Review E, 2007, 75, 026210.	0.8	11
18	Multiple attractors, long chaotic transients, and failure in small-world networks of excitable neurons. Chaos, 2007, 17, 026110.	1.0	59

#	Article	IF	Citations
19	Homology and symmetry breaking in Rayleigh-BÃ©nard convection: Experiments and simulations. Physics of Fluids, 2007, 19, 117105.	1.6	27
20	Decomposition driven interface evolution for layers of binary mixtures. I. Model derivation and stratified base states. Physics of Fluids, 2007, 19, .	1.6	57
21	Reentrant and whirling hexagons in non-Boussinesq convection. European Physical Journal: Special Topics, 2007, 146, 279-290.	1.2	1
22	Re-entrant hexagons in non-Boussinesq convection. Journal of Fluid Mechanics, 2006, 548, 341.	1.4	14
23	Geometric diagnostics of complex patterns: Spiral defect chaos. Chaos, 2006, 16, 013125.	1.0	10
24	Defect Chaos and Bursts: Hexagonal Rotating Convection and the Complex Ginzburg-Landau Equation. Physical Review Letters, 2006, 96, 074501.	2.9	10
25	Hydrothermal waves and corotating rolls in laterally heated convection in simple liquids. Journal of Non-Equilibrium Thermodynamics, 2004, 29, .	2.4	10
26	HEXAGONAL PATTERNS IN A MODEL FOR ROTATING CONVECTION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 107-117.	0.7	3
27	Instabilities in two-liquid layers subject to a horizontal temperature gradient. Theoretical and Computational Fluid Dynamics, 2004, 18, 277-284.	0.9	21
28	Convective instabilities in two superposed horizontal liquid layers heated laterally. Physical Review E, 2003, 68, 041607.	0.8	36
29	EFFECT OF A VARIABLE DELAY IN DELAYED DYNAMICAL SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 2875-2880.	0.7	16
30	Discovery of a Low-Mass Brown Dwarf Companion of the Young Nearby Star G 196-3 . , 1998, 282, 1309-1312.		128