José A Heras

List of Publications by Year in descending order

43	397	759233	839539
papers	citations	12	18
		h-index	g-index

45	45	45	134
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Topology, nonlocality and duality in classical electrodynamics. European Physical Journal Plus, 2022, 137, 1.	2.6	4
2	A note on the relativistic temperature. European Physical Journal Plus, 2022, 137, 1.	2.6	1
3	Can classical electrodynamics predict nonlocal effects?. European Physical Journal Plus, 2021, 136, 1.	2.6	4
4	Comment on 'defining the electromagnetic potentials'. European Journal of Physics, 2021, 42, 028001.	0.6	0
5	Reply to Comments on 'Feynman's handwritten notes on electromagnetism and the idea of introducing potentials before fields'. European Journal of Physics, 2021, 42, 018002.	0.6	0
6	On Feynman's handwritten notes on electromagnetism and the idea of introducing potentials before fields. European Journal of Physics, 2020, 41, 035202.	0.6	7
7	Helmholtz's theorem for two retarded fields and its application to Maxwell's equations. European Journal of Physics, 2020, 41, 035201.	0.6	2
8	Decomposition of a symmetric second-order tensor. European Journal of Physics, 2018, 39, 035202.	0.6	0
9	A note on the electric and magnetic susceptibilities. European Journal of Physics, 2017, 38, 015202.	0.6	0
10	An axiomatic approach to Maxwell's equations. European Journal of Physics, 2016, 37, 055204.	0.6	4
11	Comment on 'An educational path for the magnetic vector potential and its physical implications'. European Journal of Physics, 2014, 35, 028001.	0.6	2
12	A formal interpretation of the displacement current and the instantaneous formulation of Maxwell's equations. American Journal of Physics, 2011, 79, 409-416.	0.7	20
13	A short proof that the Coulomb-gauge potentials yield the retarded fields. European Journal of Physics, 2011, 32, 213-216.	0.6	4
14	The Galilean limits of Maxwell's equations. American Journal of Physics, 2010, 78, 1048-1055.	0.7	14
15	Can the Lorenz-gauge potentials be considered physical quantities?. European Journal of Physics, 2010, 31, 307-315.	0.6	5
16	The $\boldsymbol{c}$ equivalence principle and the correct form of writing Maxwell's equations. European Journal of Physics, 2010, 31, 1177-1185.	0.6	6
17	Reply to "Comment on 'Can Maxwell's equations be obtained from the continuity equation?,'" by E. Kapuscik [Am. J. Phys. 77, 754 (2009)]. American Journal of Physics, 2009, 77, 755-756.	0.7	1
18	The covariant formulation of Maxwell's equations expressed in a form independent of specific units. European Journal of Physics, 2009, 30, 23-33.	0.6	13

#	Article	IF	Citations
19	How to obtain the covariant form of Maxwell's equations from the continuity equation. European Journal of Physics, 2009, 30, 845-854.	0.6	5
20	The exact relation between the displacement current and the conduction current: Comment on "Time-dependent generalizations of the Biot–Savart and Coulomb laws," by D. J. Griffiths and M. A. Heald [Am. J. Phys. 59 (2), 111–117 (1991)]. American Journal of Physics, 2008, 76, 592-595.	0.7	5
21	Reply to "Comment(s) on 'Preacceleration without radiation: The nonexistence of preradiation phenomenon,'" by J. D. Jackson [Am. J. Phys. 75 (9), 844–845 (2007)] and V. Hnizdo [Am. J. Phys. 75 (9), 845–846 (2007)]. American Journal of Physics, 2007, 75, 847-850.	0.7	2
22	How the potentials in different gauges yield the same retarded electric and magnetic fields. American Journal of Physics, 2007, 75, 176-183.	0.7	19
23	The Coulomb static gauge. American Journal of Physics, 2007, 75, 459-462.	0.7	1
24	Can Maxwell's equations be obtained from the continuity equation?. American Journal of Physics, 2007, 75, 652-657.	0.7	57
25	Preacceleration without radiation: The nonexistence of preradiation phenomenon. American Journal of Physics, 2006, 74, 1025-1030.	0.7	14
26	Comment on "A generalized Helmholtz theorem for time-varying vector fields," by Artice M. Davis [Am. J. Phys. 74, 72–76 (2006)]. American Journal of Physics, 2006, 74, 743-745.	0.7	9
27	Generalization of the Schott energy in electrodynamic radiation theory. American Journal of Physics, 2006, 74, 150-153.	0.7	16
28	Comment on "Helmholtz Theorem and the V-Gauge in the Problem of Superluminal and Instantaneous Signals in Classical Electrodynamics," by A. Chubykalo et al.. Foundations of Physics Letters, 2006, 19, 579-590.	0.6	5
29	The Kirchhoff gauge. Annals of Physics, 2006, 321, 1265-1273.	2.8	8
30	The radiation reaction force on an electron reexamined. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 314, 272-277.	2.1	8
31	Comment on "Causality, the Coulomb field, and Newton's law of gravitation," by F. Rohrlich [Am. J. Phys. 70 (4), 411–414 (2002)]. American Journal of Physics, 2003, 71, 729-730.	0.7	12
32	Electric and magnetic fields of a toroidal dipole in arbitrary motion. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 249, 1-9.	2.1	14
33	New approach to the classical radiation fields of moving dipoles. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 237, 343-348.	2.1	14
34	Unified model based on $U(1)$ duality symmetry of polarization and magnetization. Physical Review E, 1998, 58, R6951-R6954.	2.1	3
35	Explicit expressions for the electric and magnetic fields of a moving magnetic dipole. Physical Review E, 1998, 58, 5047-5056.	2.1	9
36	Alternate derivation of the Liénard–Wiechert fields of a point charge. American Journal of Physics, 1996, 64, 409-413.	0.7	4

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37	Timeâ€dependent generalizations of the Biotâ€"Savart and Coulomb laws: A formal derivation. American Journal of Physics, 1995, 63, 928-932.	0.7	20
38	Duality transformations and the LiÃ©nardâ€"Wiechert fields of a dualâ€charged particle. American Journal of Physics, 1995, 63, 242-244.	0.7	2
39	Comment on â€˜â€˜Alternate â€˜derivationâ€™ of Maxwellâ€™s source equations from gauge invariance of classical mechanics,â€™â€™ by James S. Marsh [Am. J. Phys. 61, 177â€"178 (1993)]. American Journal of Physics, 1994, 62, 949-950.	0.7	5
40	Radiation fields of a dipole in arbitrary motion. American Journal of Physics, 1994, 62, 1109-1115.	0.7	29
41	Electromagnetism in Euclidean four space: A discussion between God and the Devil. American Journal of Physics, 1994, 62, 914-916.	0.7	8
42	Jefimenkoâ€™s formulas with magnetic monopoles and the LiÃ©nardâ€"Wiechert fields of a dualâ€charged particle. American Journal of Physics, 1994, 62, 525-531.	0.7	26
43	A short proof of the generalized Helmholtz theorem. American Journal of Physics, 1990, 58, 154-155.	0.7	8