Enrique Garcia-Berro

List of Publications by Year
in descending order

59 papers	1,976 citations	257101 24 h-index	243296 44 g-index
59 all docs	59 docs citations	59 times ranked	1759 citing authors

#	Article	IF	Citations
1	Evolutionary and pulsational properties of white dwarf stars. Astronomy and Astrophysics Review, 2010, 18, 471-566.	9.1	266
2	A white dwarf cooling age of 8â€‰Gyr for NGC 6791 from physical separation processes. Nature, 2010, 465, 194-196.	13.7	191
3	On the Evolution of Stars That Form Electron-degenerate Cores Processed by Carbon Burning. II. Isotope Abundances and Thermal Pulses in a 10 M[SUB]sun[/SUB] Model with an ONe Core and Applications to Long-Period Variables, Classical Novae, and Accretion-induced Collapse. Astrophysical Journal, 1996, 460, 489.	1.6	170
4	DOUBLE DEGENERATE MERGERS AS PROGENITORS OF HIGH-FIELD MAGNETIC WHITE DWARFS. Astrophysical Journal, 2012, 749, 25.	1.6	115
5	On the formation and evolution of super-asymptotic giant branch stars with cores processed by carbon burning. 1: SPICA to Antares. Astrophysical Journal, 1994, 434, 306.	1.6	88
6	The Final Evolution of ONeMg Electron-Degenerate Cores. Astrophysical Journal, 1996, 459, 701.	1.6	82
7	The evolution of ultra-massive white dwarfs. Astronomy and Astrophysics, 2019, 625, A87.	2.1	79
8	Asteroseismological bound onÄ/Gfrom pulsating white dwarfs. Physical Review D, 2004, 69, .	1.6	75
9	Kelvinâ€“Helmholtz instabilities as the source of inhomogeneous mixing in nova explosions. Nature, 2011, 478, 490-492.	13.7	70
10	THE POST-MERGER MAGNETIZED EVOLUTION OF WHITE DWARF BINARIES: THE DOUBLE-DEGENERATE CHANNEL OF SUB-CHANDRASEKHAR TYPE Ia SUPERNOVAE AND THE FORMATION OF MAGNETIZED WHITE DWARFS. Astrophysical Journal, 2013, 773, 136.	1.6	70
11	A Common Origin of Magnetism from Planets to White Dwarfs. Astrophysical Journal Letters, 2017, 836, L28.	3.0	53
12	An upper limit to the secular variation of the gravitational constant from white dwarf stars. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 021-021.	1.9	51
13	An asteroseismic constraint on the mass of the axion from the period drift of the pulsating DA white dwarf star L19-2. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 036-036.	1.9	46
14	Constraining the double-degenerate scenario for Type Ia supernovae from merger ejected matter. Monthly Notices of the Royal Astronomical Society, 2015, 447, 2803-2809.	1.6	41
15	SPIRAL INSTABILITY CAN DRIVE THERMONUCLEAR EXPLOSIONS IN BINARY WHITE DWARF MERGERS. Astrophysical Journal Letters, 2015, 800, L7.	3.0	40
16	Updated Evolutionary Sequences for Hydrogen-deficient White Dwarfs. Astrophysical Journal, 2017, 839, 11.	1.6	37
17	THE VARIATION OF THE GRAVITATIONAL CONSTANT INFERRED FROM THE HUBBLE DIAGRAM OF TYPE Ia SUPERNOVAE. International Journal of Modern Physics D, 2006, 15, 1163-1174.	0.9	36
18	An independent constraint on the secular rate of variation of the gravitational constant from pulsating white dwarfs. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 032-032.	1.9	35

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19	Three-dimensional simulations of turbulent convective mixing in ONe and CO classical nova explosions. Astronomy and Astrophysics, 2016, 595, A28.	2.1	34
20	Double-degenerate Carbonâ€“Oxygen and Oxygenâ€“Neon White Dwarf Mergers: A New Mechanism for Faint and Rapid Type Ia Supernovae. Astrophysical Journal, 2018, 869, 140.	1.6	29
21	SimulatingGaiaperformances on white dwarfs. Monthly Notices of the Royal Astronomical Society, 2005, 360, 1381-1392.	1.6	27
22	LIGHT CURVES AND SPECTRA FROM A THERMONUCLEAR EXPLOSION OF A WHITE DWARF MERGER. Astrophysical Journal, 2016, 827, 128.	1.6	27
23	The First Nova Explosions. Astrophysical Journal, 2007, 662, L103-L106.	1.6	25
24	The white dwarf population of NGC 6397. Astronomy and Astrophysics, 2015, 581, A90.	2.1	25
25	The cooling of oxygenâ€”neon white dwarfs. Monthly Notices of the Royal Astronomical Society, 1997, 289, 973-978.	1.6	22
26	Neural Network Identification of Halo White Dwarfs. Astrophysical Journal, 1998, 508, L71-L74.	1.6	22
27	QUIESCENT NUCLEAR BURNING IN LOW-METALLICITY WHITE DWARFS. Astrophysical Journal Letters, 2013, 775, L22.	3.0	20
28	Design of the magnetic diagnostics unit onboard LISA Pathfinder. Aerospace Science and Technology, 2013, 26, 53-59.	2.5	19
29	The white dwarf population within 40 pc of the Sun. Astronomy and Astrophysics, 2016, 588, A35.	2.1	19
30	The white dwarf luminosity function - I. Statistical errors and alternatives. Monthly Notices of the Royal Astronomical Society, 2006, 369, 1654-1666.	1.6	17
31	The evolution of white dwarfs resulting from helium-enhanced, low-metallicity progenitor stars. Astronomy and Astrophysics, 2017, 597, A67.	2.1	17
32	The white dwarf cooling sequence of 47 Tucanae. Astronomy and Astrophysics, 2014, 571, A56.	2.1	17
33	One-armed Spiral Instability in Double-degenerate Post-merger Accretion Disks. Astrophysical Journal, 2017, 840, 16.	1.6	12
34	The physics of white dwarfs. Journal of Physics Condensed Matter, 1998, 10, 11263-11272.	0.7	11
35	Inflight magnetic characterization of the test masses onboard LISA Pathfinder. Physical Review D, 2012, 85, .	1.6	11
36	The effects of metallicity on the Galactic disk population of white dwarfs. Astronomy and Astrophysics, 2014, 566, A81.	2.1	10

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37	Effects of²²Ne sedimentation and metallicity on the local 40 pc white dwarf luminosity function. Astronomy and Astrophysics, 2019, 628, A52.	2.1	9
38	Revisiting the luminosity function of single halo white dwarfs. Astronomy and Astrophysics, 2015, 581, A108.	2.1	9
39	Tailored data compression using stream partitioning and prediction: application to Gaia. Experimental Astronomy, 2007, 21, 125-149.	1.6	7
40	Complex dynamics in a simple model of pulsations for super-asymptotic giant branch stars. Chaos, 2002, 12, 332-343.	1.0	5
41	Using self-organizing maps to identify potential halo white dwarfs. Neural Networks, 2003, 16, 405-410.	3.3	5
42	3D Hydrodynamical Simulations of Helium-ignited Double-degenerate White Dwarf Mergers. Astrophysical Journal Letters, 2022, 932, L24.	3.0	5
43	The white dwarf luminosity function â€“ II. The effect of the measurement errors and other biases. Monthly Notices of the Royal Astronomical Society, 2007, 378, 1461-1470.	1.6	4
44	Efficient data storage of astronomical data using HDF5 and PEC compression. , 2011, , .		4
45	Optimizing GPS data transmission using entropy coding compression. , 2010, , .		3
46	Discrete wavelet transform fully adaptive prediction error coder: image data compression based on CCSDS 122.0 and fully adaptive prediction error coder. Journal of Applied Remote Sensing, 2013, 7, 074592.	0.6	3
47	A weakly non-adiabatic one-zone model of stellar pulsations: application to Mira stars. Monthly Notices of the Royal Astronomical Society, 2003, 341, 855-862.	1.6	2
48	The Cooling of White Dwarfs and Their Internal Composition. Astrophysics and Space Science Library, 1997, , 27-33.	1.0	2
49	Outlier-Resilient Entropy Coding. , 2012, , 87-113.		2
50	The Final Evolution of 8-10 MâŠ™ Stars. , 1997, , 303-311.		2
51	Simple resiliency improvement of the CCSDS standard for lossless data compression. , 2010, , .		1
52	Prediction Error Coder: a fast lossless compression method for satellite noisy data. Journal of Applied Remote Sensing, 2013, 7, 074593.	0.6	1
53	FAPEC-based lossless and lossy hyperspectral data compression. , 2015, , .		1
54	Number Counts of White Dwarfs: The Impact of GAIA. , 2005, , 15-24.		1

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55	Monte Carlo Simulations of the Kinematics and Luminosity Function of White Dwarfs. Astrophysics and Space Science Library, 1997, , 97-104.	1.0	1
56	White Dwarf Crystallization. International Astronomical Union Colloquium, 1994, 147, 161-185.	0.1	0
57	Classification of the White Dwarf Populations Using Neural Networks. , 0, , 391-393.		0
58	FAPEC in an FPGA: a simple low-power solution for data compression in space. , 2011, , .		0
59	A population synthesis study of the local white dwarf population. Proceedings of the International Astronomical Union, 2017, 13, 374-375.	0.0	0