

# Jordi Isern

## List of Publications by Year in descending order

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119  
papers

5,169  
citations

61984

43  
h-index

85541

71  
g-index

121  
all docs

121  
docs citations

121  
times ranked

3277  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of radioactive elements in novae and supernovae and their use as a diagnostic tool. <i>New Astronomy Reviews</i> , 2021, 92, 101606.	12.8	4
2	The Star Formation History in the Solar Neighborhood as Told by Massive White Dwarfs. <i>Astrophysical Journal Letters</i> , 2019, 878, L11.	8.3	28
3	White dwarfs as advanced physics laboratories. The axion case. <i>Proceedings of the International Astronomical Union</i> , 2019, 15, 138-153.	0.0	3
4	White Dwarf Collisions, a Promising Scenario to Account for Meteoritic Anomalies. <i>Research Notes of the AAS</i> , 2018, 2, 157.	0.7	3
5	A Common Origin of Magnetism from Planets to White Dwarfs. <i>Astrophysical Journal Letters</i> , 2017, 836, L28.	8.3	53
6	Cobalt-56 $\gamma$ -ray emission lines from the type Ia supernova 2014j. <i>Nature</i> , 2014, 512, 406-408.	27.8	141
7	Conceptual design of the International Axion Observatory (IAXO). <i>Journal of Instrumentation</i> , 2014, 9, T05002-T05002.	1.2	201
8	Revisiting the axion bounds from the Galactic white dwarf luminosity function. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 069-069.	5.4	134
9	The effects of metallicity on the Galactic disk population of white dwarfs. <i>Astronomy and Astrophysics</i> , 2014, 566, A81.	5.1	10
10	White dwarfs constrain dark forces. <i>Physical Review D</i> , 2013, 88, .	4.7	46
11	Detonations in white dwarf dynamical interactions. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 434, 2539-2555.	4.4	33
12	Magnetic white dwarfs with debris discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 431, 2778-2788.	4.4	19
13	Future axion searches with the International Axion Observatory (IAXO). <i>Journal of Physics: Conference Series</i> , 2013, 460, 012002.	0.4	9
14	A consistency test of white dwarf and main sequence ages: NGC 6791. <i>EPJ Web of Conferences</i> , 2013, 43, 05003.	0.3	1
15	White dwarf cooling sequences and cosmochronology. <i>EPJ Web of Conferences</i> , 2013, 43, 05002.	0.3	2
16	Observation of SN2011fe with INTEGRAL. <i>Astronomy and Astrophysics</i> , 2013, 552, A97.	5.1	19
17	An independent limit on the axion mass from the variable white dwarf star R548. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 010-010.	5.4	53
18	DOUBLE DEGENERATE MERGERS AS PROGENITORS OF HIGH-FIELD MAGNETIC WHITE DWARFS. <i>Astrophysical Journal</i> , 2012, 749, 25.	4.5	115

#	ARTICLE	IF	CITATIONS
19	The Large Observatory for X-ray Timing (LOFT). <i>Experimental Astronomy</i> , 2012, 34, 415-444.	3.7	168
20	A DUAL mission for nuclear astrophysics. <i>Experimental Astronomy</i> , 2012, 34, 583-622.	3.7	19
21	LOFT: the Large Observatory For X-ray Timing. <i>Proceedings of SPIE</i> , 2012, , .	0.8	29
22	New phase diagrams for dense carbon-oxygen mixtures and white dwarf evolution. <i>Astronomy and Astrophysics</i> , 2012, 537, A33.	5.1	35
23	The rate of cooling of the pulsating white dwarf star G117 <sup>+</sup> B15A: a new asteroseismological inference of the axion mass. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 424, 2792-2799.	4.4	75
24	The evolution of white dwarfs with a varying gravitational constant. <i>Astronomy and Astrophysics</i> , 2011, 527, A72.	5.1	13
25	Type Ia supernovae and the $^{12}\text{C}+^{12}\text{C}$ reaction rate. <i>Astronomy and Astrophysics</i> , 2011, 535, A114.	5.1	27
26	The DUAL mission concept. <i>Proceedings of SPIE</i> , 2011, , .	0.8	4
27	NUCLEOSYNTHESIS DURING THE MERGER OF WHITE DWARFS AND THE ORIGIN OF R CORONAE BOREALIS STARS. <i>Astrophysical Journal Letters</i> , 2011, 737, L34.	8.3	43
28	An upper limit to the secular variation of the gravitational constant from white dwarf stars. <i>Journal of Cosmology and Astroparticle Physics</i> , 2011, 2011, 021-021.	5.4	51
29	The white-dwarf cooling sequence of NGC 6791: a unique tool for stellar evolution. <i>Astronomy and Astrophysics</i> , 2011, 533, A31.	5.1	9
30	The Cooling of White Dwarfs and a Varying Gravitational Constant. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2011, , 47-57.	0.3	0
31	Research and development of a gamma-ray imaging spectrometer in the MeV range in Barcelona. , 2010, , .		4
32	Axions and the pulsation periods of variable white dwarfs revisited. <i>Astronomy and Astrophysics</i> , 2010, 512, A86.	5.1	47
33	A LARGE STELLAR EVOLUTION DATABASE FOR POPULATION SYNTHESIS STUDIES. VI. WHITE DWARF COOLING SEQUENCES. <i>Astrophysical Journal</i> , 2010, 716, 1241-1251.	4.5	102
34	Evolutionary and pulsational properties of white dwarf stars. <i>Astronomy and Astrophysics Review</i> , 2010, 18, 471-566.	25.5	266
35	Imaging detector development for nuclear astrophysics using pixelated CdTe. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 623, 434-436.	1.6	6
36	Smoothed particle hydrodynamics simulations of white dwarf collisions and close encounters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 406, 2749-2763.	4.4	56

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37	A white dwarf cooling age of 8â€‰%Gyr for NGC 6791 from physical separation processes. <i>Nature</i> , 2010, 465, 194-196.	27.8	191
38	White dwarfs with hydrogen-deficient atmospheres and the dark matter content of the Galaxy. <i>Astronomy and Astrophysics</i> , 2010, 511, A88.	5.1	2
39	EVOLUTION OF WHITE DWARF STARS WITH HIGH-METALLICITY PROGENITORS: THE ROLE OF <sup>22</sup> Ne DIFFUSION. <i>Astrophysical Journal</i> , 2010, 719, 612-621.	4.5	50
40	High-resolution smoothed particle hydrodynamics simulations of the merger of binary white dwarfs. <i>Astronomy and Astrophysics</i> , 2009, 500, 1193-1205.	5.1	138
41	Testing the initial-final mass relationship of white dwarfs. <i>Journal of Physics: Conference Series</i> , 2009, 172, 012007.	0.4	6
42	Axions and the white dwarf luminosity function. <i>Journal of Physics: Conference Series</i> , 2009, 172, 012005.	0.4	46
43	White dwarfs, red dwarfs and halo dark matter. <i>Journal of Physics: Conference Series</i> , 2009, 172, 012003.	0.4	0
44	The gravitational waveforms of white dwarf collisions in globular clusters. <i>Journal of Physics: Conference Series</i> , 2009, 172, 012035.	0.4	0
45	SNIa, white dwarfs and the variation of the gravitational constant. <i>Proceedings of the International Astronomical Union</i> , 2009, 5, 311-311.	0.0	0
46	Detection and interpretation of <sup>13</sup> C-ray emission from SNIa. <i>New Astronomy Reviews</i> , 2008, 52, 377-380.	12.8	15
47	The initial-final mass relationship of white dwarfs revisited: effect on the luminosity function and mass distribution. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 387, 1693-1706.	4.4	186
48	OAdM robotic observatory: solutions for an unattended small-class observatory. <i>Proceedings of SPIE</i> , 2008, , .	0.8	3
49	Infrared Observations of Supernovae with IRAIT at Dome C. <i>EAS Publications Series</i> , 2008, 33, 239-242.	0.3	0
50	Stellar chronology with white dwarfs in wide binaries. <i>Proceedings of the International Astronomical Union</i> , 2008, 4, 307-314.	0.0	1
51	Axions and the Cooling of White Dwarf Stars. <i>Astrophysical Journal</i> , 2008, 682, L109-L112.	4.5	119
52	The contribution of red dwarfs and white dwarfs to the halo dark matter. <i>Astronomy and Astrophysics</i> , 2008, 486, 427-435.	5.1	8
53	WD0433+270: an old Hyades stream member or an Fe-core white dwarf?. <i>Astronomy and Astrophysics</i> , 2008, 477, 901-906.	5.1	15
54	Gravitational wave radiation from white dwarf close encounters in globular clusters. <i>EAS Publications Series</i> , 2008, 30, 227-232.	0.3	0

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55	Moving Optical Systems of IRAIT: Design and Construction. EAS Publications Series, 2007, 25, 221-224.	0.3	0
56	Evidence of a Merger of Binary White Dwarfs: The Case of GD 362. Astrophysical Journal, 2007, 661, L179-L182.	4.5	18
57	The age and colors of massive white dwarf stars. Astronomy and Astrophysics, 2007, 465, 249-255.	5.1	79
58	The contribution of oxygen-neon white dwarfs to the MACHO content of the Galactic halo. Astronomy and Astrophysics, 2007, 471, 151-158.	5.1	6
59	The white dwarf luminosity function II. The effect of the measurement errors and other biases. Monthly Notices of the Royal Astronomical Society, 2007, 378, 1461-1470.	4.4	4
60	Astronomical measurements and constraints on the variability of fundamental constants. Astronomy and Astrophysics Review, 2007, 14, 113-170.	25.5	59
61	White Dwarfs as Astroparticle Physics Laboratories. EAS Publications Series, 2007, 25, 171-174.	0.3	0
62	The gravitational wave radiation of pulsating white dwarfs revisited: the case of BPM 37093 and PG 1159-035. Astronomy and Astrophysics, 2006, 446, 259-266.	5.1	2
63	The white dwarf luminosity function - I. Statistical errors and alternatives. Monthly Notices of the Royal Astronomical Society, 2006, 369, 1654-1666.	4.4	17
64	The science of $\hat{\Gamma}^3$ -ray spectroscopy. Advances in Space Research, 2006, 38, 1434-1438.	2.6	3
65	MAX: Development of a Laue diffraction lens for nuclear astrophysics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 567, 333-336.	1.6	5
66	MAX, a Laue diffraction lens for nuclear astrophysics. Experimental Astronomy, 2006, 20, 269-278.	3.7	24
67	The International Robotic Antarctic Infrared Telescope (IRAIT)., 2006, , .		16
68	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.	2.1	36
69	Gravitational wave radiation from the coalescence of white dwarfs. Monthly Notices of the Royal Astronomical Society, 2005, 356, 627-636.	4.4	35
70	Simulating Gaia performances on white dwarfs. Monthly Notices of the Royal Astronomical Society, 2005, 360, 1381-1392.	4.4	27
71	Mass-radius relations for massive white dwarf stars. Astronomy and Astrophysics, 2005, 441, 689-694.	5.1	63
72	Gravitational wave emission from the coalescence of white dwarfs. Classical and Quantum Gravity, 2005, 22, S453-S456.	4.0	0

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73	New evolutionary models for massive ZZ Ceti stars. <i>Astronomy and Astrophysics</i> , 2005, 429, 277-290.	5.1	30
74	Smoothed Particle Hydrodynamics simulations of merging white dwarfs. <i>Astronomy and Astrophysics</i> , 2004, 413, 257-272.	5.1	109
75	Asteroseismological bound on $\dot{M}$ from pulsating white dwarfs. <i>Physical Review D</i> , 2004, 69, .	4.7	75
76	The Montsec Astronomical Observatory: a robotic telescope in Catalonia (Spain). <i>Astronomische Nachrichten</i> , 2004, 325, 657-657.	1.2	0
77	Robotic design of the Montsec Astronomical Observatory. <i>Astronomische Nachrichten</i> , 2004, 325, 658-658.	1.2	0
78	$\dot{\gamma}$ -ray emission from type Ia supernovae. <i>New Astronomy Reviews</i> , 2004, 48, 31-33.	12.8	3
79	Unified One-Dimensional Simulations of Gamma-Ray Line Emission from Type Ia Supernovae. <i>Astrophysical Journal</i> , 2004, 613, 1101-1119.	4.5	44
80	MAX: a gamma-ray lens for nuclear astrophysics. , 2004, , .		25
81	Monte Carlo simulations of the halo white dwarf population. <i>Astronomy and Astrophysics</i> , 2004, 418, 53-65.	5.1	42
82	Pulsations of massive ZZ Ceti stars with carbon/oxygen and oxygen/neon cores. <i>Astronomy and Astrophysics</i> , 2004, 427, 923-932.	5.1	24
83	Using self-organizing maps to identify potential halo white dwarfs. <i>Neural Networks</i> , 2003, 16, 405-410.	5.9	5
84	White dwarf stars as particle physics laboratories. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2003, 114, 107-110.	0.4	16
85	$s$ -Process Nucleosynthesis in Carbon Stars. <i>Astrophysical Journal</i> , 2002, 579, 817-831.	4.5	149
86	High-proper-motion white dwarfs and halo dark matter. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 336, 971-978.	4.4	55
87	On the white dwarf distances to galactic globular clusters. <i>Astronomy and Astrophysics</i> , 2001, 371, 921-931.	5.1	15
88	The impact of a merger episode in the galactic disc white dwarf population. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 328, 492-500.	4.4	15
89	SIXE: An X-Ray Experiment for the MINISAT Platform. <i>Astrophysics and Space Science</i> , 2001, 276, 39-48.	1.4	6
90	White dwarfs as tracers of galactic evolution. <i>Astrophysics and Space Science</i> , 2001, 277, 273-276.	1.4	0

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91	The potential of the variable DA white dwarf G117?B15A as a tool for fundamental physics. <i>New Astronomy</i> , 2001, 6, 197-213.	1.8	66
92	Bounds on the possible evolution of the gravitational constant from cosmological type-Ia supernovae. <i>Physical Review D</i> , 2001, 65, .	4.7	109
93	The Implications of the New $Z_{\odot}$ Stellar Models and Yields on the Early Metal Pollution of the Intergalactic Medium. <i>Astrophysical Journal</i> , 2001, 557, 126-136.	4.5	42
94	The $^{85}\text{Kr}$ $\beta$ -Process Branching and the Mass of Carbon Stars. <i>Astrophysical Journal</i> , 2001, 559, 1117-1134.	4.5	152
95	The Chemical Composition of Carbon Stars. II. The $\text{J}$ -Type Stars. <i>Astrophysical Journal</i> , 2000, 536, 438-449.	4.5	78
96	The Ages of Very Cool Hydrogen-rich White Dwarfs. <i>Astrophysical Journal</i> , 2000, 544, 1036-1043.	4.5	115
97	The Energetics of Crystallizing White Dwarfs Revisited Again. <i>Astrophysical Journal</i> , 2000, 528, 397-400.	4.5	58
98	Gamma-Ray Emission from Novae Related to Positron Annihilation: Constraints on its Observability Posed by New Experimental Nuclear Data. <i>Astrophysical Journal</i> , 1999, 526, L97-L100.	4.5	78
99	Monte Carlo simulations of the disc white dwarf population. <i>Monthly Notices of the Royal Astronomical Society</i> , 1999, 302, 173-188.	4.4	50
100	Asymptotic giant branch stars as astroparticle laboratories. <i>Monthly Notices of the Royal Astronomical Society</i> , 1999, 306, L1-L7.	4.4	11
101	The fate of CO white dwarfs that experience slow deflagrations. <i>Monthly Notices of the Royal Astronomical Society</i> , 1999, 308, 928-938.	4.4	1
102	SIXE: An X-ray experiment for a minisatellite. , 1999, , .		0
103	SIXE: A Payload for MINISAT-02. <i>Astrophysics and Space Science</i> , 1998, 263, 389-392.	1.4	2
104	The role of gravitational supernovae in the Galactic evolution of the Li, Be and B isotopes. <i>Monthly Notices of the Royal Astronomical Society</i> , 1998, 299, 1007-1012.	4.4	2
105	The physics of white dwarfs. <i>Journal of Physics Condensed Matter</i> , 1998, 10, 11263-11272.	1.8	11
106	The Halo White Dwarf Population. <i>Astrophysical Journal</i> , 1998, 503, 239-246.	4.5	48
107	Prospects for Type Ia supernova explosion mechanism identification with $\hat{\gamma}$ -rays. <i>Monthly Notices of the Royal Astronomical Society</i> , 1998, 295, 1-9.	4.4	31
108	Neural Network Identification of Halo White Dwarfs. <i>Astrophysical Journal</i> , 1998, 508, L71-L74.	4.5	22

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109	The Cooling of CO White Dwarfs: Influence of the Internal Chemical Distribution. <i>Astrophysical Journal</i> , 1997, 486, 413-419.	4.5	155
110	The Physics of Crystallizing White Dwarfs. <i>Astrophysical Journal</i> , 1997, 485, 308-312.	4.5	71
111	Further Constraints on White Dwarf Galactic Halos. <i>Astrophysical Journal</i> , 1997, 488, L35-L38.	4.5	21
112	On the Synthesis of $^{7}\text{Li}$ and $^{7}\text{Be}$ in Novae. <i>Astrophysical Journal</i> , 1996, 465, L27-L30.	4.5	83
113	The Final Evolution of ONeMg Electron-Degenerate Cores. <i>Astrophysical Journal</i> , 1996, 459, 701.	4.5	82
114	Clues for Lithium Production in Galactic C Stars: The $^{12}\text{C}/^{13}\text{C}$ Ratio. <i>Astrophysical Journal</i> , 1996, 460, 443.	4.5	21
115	Simplified Treatment of the Radiative Transfer Problem in Expanding Envelopes. <i>Astrophysical Journal</i> , 1996, 470, 1018.	4.5	3
116	On the Formation of Massive $\text{C}\text{O}$ White Dwarfs: The Lifting Effect of Rotation. <i>Astrophysical Journal</i> , 1996, 472, 783-788.	4.5	41
117	Cooling theory of crystallized white dwarfs. <i>Astrophysical Journal</i> , 1994, 434, 641.	4.5	134
118	The influence of crystallization on the luminosity function of white dwarfs. <i>Astrophysical Journal</i> , 1994, 434, 652.	4.5	67
119	Classification of the White Dwarf Populations Using Neural Networks. , 0, , 391-393.		0