

# Daniel Carralero

## List of Publications by Year in descending order

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116  
papers

2,943  
citations

159585

30  
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206112

48  
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116  
all docs

116  
docs citations

116  
times ranked

2103  
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of first Wendelstein 7-X high-performance operation. Nuclear Fusion, 2019, 59, 112004.	3.5	165
2	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	3.5	150
3	An experimental investigation of the high density transition of the scrape-off layer transport in ASDEX Upgrade. Nuclear Fusion, 2014, 54, 123005.	3.5	106
4	Evidence of Long-Distance Correlation of Fluctuations during Edge Transitions to Improved-Confinement Regimes in the TJ-II Stellarator. Physical Review Letters, 2008, 100, 215003.	7.8	91
5	Experimental Validation of a Filament Transport Model in Turbulent Magnetized Plasmas. Physical Review Letters, 2015, 115, 215002.	7.8	89
6	Overview of the JET preparation for deuterium-tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
7	Confinement transitions in TJ-II under Li-coated wall conditions. Nuclear Fusion, 2009, 49, 104018.	3.5	75
8	Efficient generation of energetic ions in multi-ion plasmas by radio-frequency heating. Nature Physics, 2017, 13, 973-978.	16.7	73
9	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
10	Characterization of the Li-BES at ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2014, 56, 025008.	2.1	70
11	The H-mode density limit in the full tungsten ASDEX Upgrade tokamak. Plasma Physics and Controlled Fusion, 2015, 57, 014038.	2.1	70
12	The DEMO wall load challenge. Nuclear Fusion, 2017, 57, 046002.	3.5	65
13	Recent progress towards a quantitative description of filamentary SOL transport. Nuclear Fusion, 2017, 57, 056044.	3.5	56
14	Blob properties in L- and H-mode from gas-puff imaging in ASDEX upgrade. Plasma Physics and Controlled Fusion, 2014, 56, 125001.	2.1	55
15	Overview of ASDEX Upgrade results. Nuclear Fusion, 2017, 57, 102015.	3.5	53
16	Filament velocity scaling laws for warm ions. Physics of Plasmas, 2013, 20, 102307.	1.9	52
17	Overview of JET results for optimising ITER operation. Nuclear Fusion, 2022, 62, 042026.	3.5	52
18	Overview of the JET results. Nuclear Fusion, 2015, 55, 104001.	3.5	50

#	ARTICLE	IF	CITATIONS
19	Origin and turbulence spreading of plasma blobs. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	45
20	Scrape-off layer transport and filament characteristics in high-density tokamak regimes. <i>Nuclear Fusion</i> , 2020, 60, 016001.	3.5	43
21	Multi-scale physics mechanisms and spontaneous edge transport bifurcations in fusion plasmas. <i>Europhysics Letters</i> , 2009, 87, 55002.	2.0	41
22	On the role of filaments in perpendicular heat transport at the scrape-off layer. <i>Nuclear Fusion</i> , 2018, 58, 096015.	3.5	41
23	Overview of JET results. <i>Nuclear Fusion</i> , 2003, 43, 1540-1554.	3.5	38
24	Overview of physics studies on ASDEX Upgrade. <i>Nuclear Fusion</i> , 2019, 59, 112014.	3.5	38
25	Enhanced performance in fusion plasmas through turbulence suppression by megaelectronvolt ions. <i>Nature Physics</i> , 2022, 18, 776-782.	16.7	36
26	Magnetic field dependence of the blob dynamics in the edge of ASDEX upgrade L-mode plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 075019.	2.1	35
27	Modification of SOL profiles and fluctuations with line-average density and divertor flux expansion in TCX. <i>Nuclear Fusion</i> , 2017, 57, 116014.	3.5	35
28	Neutron spectroscopy measurements of 14 MeV neutrons at unprecedented energy resolution and implications for deuterium-tritium fusion plasma diagnostics. <i>Measurement Science and Technology</i> , 2018, 29, 045502.	2.6	35
29	Filament transport, warm ions and erosion in ASDEX Upgrade L-modes. <i>Nuclear Fusion</i> , 2015, 55, 033018.	3.5	34
30	Dependence on plasma shape and plasma fueling for small edge-localized mode regimes in TCX and ASDEX Upgrade. <i>Nuclear Fusion</i> , 2019, 59, 086020.	3.5	34
31	Implications of high density operation on SOL transport: A multimachine investigation. <i>Journal of Nuclear Materials</i> , 2015, 463, 123-127.	2.7	31
32	Parameter dependences of the separatrix density in nitrogen seeded ASDEX Upgrade H-mode discharges. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 045006.	2.1	31
33	Validation of the ICRF antenna coupling code RPLICASOL against TOPICA and experiments. <i>Nuclear Fusion</i> , 2019, 59, 046001.	3.5	31
34	Long-range correlations and edge transport bifurcation in fusion plasmas. <i>Nuclear Fusion</i> , 2011, 51, 063020.	3.5	30
35	Heat flux pattern in detached L-modes and ELM mitigated H-modes with rotating magnetic perturbations in ASDEX Upgrade. <i>Nuclear Fusion</i> , 2017, 57, 116006.	3.5	28
36	Ion temperature clamping in Wendelstein 7-X electron cyclotron heated plasmas. <i>Nuclear Fusion</i> , 2021, 61, 116072.	3.5	27

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37	Overview of TJ-II experiments. Nuclear Fusion, 2011, 51, 094022.	3.5	24
38	Experimental confirmation of efficient island divertor operation and successful neoclassical transport optimization in Wendelstein 7-X. Nuclear Fusion, 2022, 62, 042022.	3.5	24
39	Overview of progress in European medium sized tokamaks towards an integrated plasma-edge/wall solution. Nuclear Fusion, 2017, 57, 102014.	3.5	23
40	Determination of isotope ratio in the divertor of JET-ILW by high-resolution H <sup>1</sup> spectroscopy: H <sup>1</sup> -D experiment and implications for D <sup>1</sup> -T experiment. Nuclear Fusion, 2019, 59, 046011.	3.5	23
41	A study on the density shoulder formation in the SOL of H-mode plasmas. Nuclear Materials and Energy, 2017, 12, 1189-1193.	1.3	22
42	14 MeV calibration of JET neutron detectors phase 1: calibration and characterization of the neutron source. Nuclear Fusion, 2018, 58, 026012.	3.5	22
43	Evolution of nitrogen concentration and ammonia production in N <sub>2</sub> -seeded H-mode discharges at ASDEX Upgrade. Nuclear Fusion, 2019, 59, 046010.	3.5	22
44	Spatially resolved H <sup>1</sup> -emission simulation with EIRENE in TJ-II to study hydrogen atomic and molecular physics in low density, high temperature fusion edge plasmas. Nuclear Fusion, 2008, 48, 095005.	3.5	20
45	EMC3-Eirene simulations of particle- and energy fluxes to main chamber- and divertor plasma facing components in ASDEX Upgrade compared to experiments. Journal of Nuclear Materials, 2015, 463, 744-747.	2.7	20
46	Progress in controlling ICRF-edge interactions in ASDEX upgrade. AIP Conference Proceedings, 2015, , .	0.4	19
47	Turbulence and perpendicular plasma flow asymmetries measured at TJ-II plasmas. Nuclear Fusion, 2019, 59, 076021.	3.5	19
48	Surface modification of He pre-exposed tungsten samples by He plasma impact in the divertor manipulator of ASDEX Upgrade. Nuclear Materials and Energy, 2017, 12, 575-581.	1.3	18
49	Analysis of deposited layers with deuterium and impurity elements on samples from the divertor of JET with ITER-like wall. Journal of Nuclear Materials, 2019, 516, 202-213.	2.7	18
50	Radial electric field and density fluctuations measured by Doppler reflectometry during the post-pellet enhanced confinement phase in W7-X. Nuclear Fusion, 2021, 61, 046008.	3.5	18
51	Characterization of injection and confinement improvement through impurity induced profile modifications on the Wendelstein 7-X stellarator. Physics of Plasmas, 2021, 28, .	1.9	18
52	Overview of the RFX-mod fusion science programme. Nuclear Fusion, 2013, 53, 104018.	3.5	17
53	Far scrape-off layer particle and heat fluxes in high density High power scenarios. Journal of Nuclear Materials, 2015, 463, 739-743.	2.7	17
54	High-resolution tungsten spectroscopy relevant to the diagnostic of high-temperature tokamak plasmas. Physical Review A, 2018, 97, .	2.5	17

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55	Neutral density estimation in the ASDEX upgrade divertor from deuterium emissivity measurements during detachment and shoulder formation. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 115001.	2.1	17
56	Direct observations of L-I-H and H-I-L transitions with the X-point reciprocating probe in ASDEX Upgrade. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	16
57	Electromagnetic turbulent structures: A ubiquitous feature of the edge region of toroidal plasma configurations. <i>Physics of Plasmas</i> , 2015, 22, 012310.	1.9	16
58	Recent ASDEX Upgrade research in support of ITER and DEMO. <i>Nuclear Fusion</i> , 2015, 55, 104010.	3.5	16
59	Plasma-wall interaction studies in the full-W ASDEX upgrade during helium plasma discharges. <i>Nuclear Fusion</i> , 2017, 57, 066015.	3.5	16
60	Dynamic transport regulation by zonal flow-like structures in the TJ-II stellarator. <i>Nuclear Fusion</i> , 2012, 52, 063010.	3.5	15
61	On-surface potential and radial electric field variations in electron root stellarator plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 104002.	2.1	14
62	Characterization of the radial electric field and edge velocity shear in Wendelstein 7-X. <i>Nuclear Fusion</i> , 2020, 60, 106019.	3.5	14
63	Long-Range Correlations During Plasma Transitions in the TJ-II Stellarator. <i>Contributions To Plasma Physics</i> , 2010, 50, 507-513.	1.1	13
64	Transport studies using laser blow-off injection of low-Z trace impurities injected into the TJ-II stellarator. <i>Nuclear Fusion</i> , 2011, 51, 063015.	3.5	13
65	Comparative H-mode density limit studies in JET and AUG. <i>Nuclear Materials and Energy</i> , 2017, 12, 100-110.	1.3	13
66	Real-time plasma state monitoring and supervisory control on TCV. <i>Nuclear Fusion</i> , 2019, 59, 026017.	3.5	13
67	An experimental characterization of core turbulence regimes in Wendelstein 7-X. <i>Nuclear Fusion</i> , 0, , .	3.5	13
68	Localized Scrape-Off Layer density modifications by Ion Cyclotron near fields in JET and ASDEX-Upgrade L-mode plasmas. <i>Journal of Nuclear Materials</i> , 2015, 463, 735-738.	2.7	12
69	Effects of outer top gas injection on ICRF coupling in ASDEX Upgrade: towards modelling of ITER gas injection. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 075004.	2.1	12
70	Divertor, scrape-off layer and pedestal particle dynamics in the ELM cycle on ASDEX Upgrade. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 025002.	2.1	12
71	Overview of recent TJ-II stellarator results. <i>Nuclear Fusion</i> , 2019, 59, 112019.	3.5	12
72	Numerical modelling of an enhanced perpendicular transport regime in the scrape-off layer of ASDEX Upgrade. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 075003.	2.1	12

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73	2-dimensional mapping of ICRF-induced scrape-off layer modifications with a retarding field analyser on ASDEX-Upgrade. AIP Conference Proceedings, 2014, , .	0.4	11
74	The influence of finite ion temperature on plasma blob dynamics. Plasma Physics and Controlled Fusion, 2015, 57, 014012.	2.1	11
75	Poloidal asymmetries in the edge density profiles on ASDEX Upgrade. Nuclear Fusion, 2018, 58, 026005.	3.5	11
76	The diffusion limit of ballistic transport in the scrape-off layer. Physics of Plasmas, 2020, 27, .	1.9	11
77	Physics design point of high-field stellarator reactors. Nuclear Fusion, 2022, 62, 036024.	3.5	11
78	Dynamics of zonal-flow-like structures in the edge of the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2013, 55, 014001.	2.1	10
79	Influence of the first wall material on the particle fuelling in ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2017, 59, 055016.	2.1	10
80	ELM behavior in ASDEX Upgrade with and without nitrogen seeding. Nuclear Fusion, 2017, 57, 022004.	3.5	10
81	Tritium distributions on W-coated divertor tiles used in the third JET ITER-like wall campaign. Nuclear Materials and Energy, 2019, 18, 258-261.	1.3	10
82	The effect of the isotope on the H-mode density limit. Nuclear Fusion, 2017, 57, 086007.	3.5	9
83	Overview of the TJ-II stellarator research programme towards model validation in fusion plasmas. Nuclear Fusion, 2022, 62, 042025.	3.5	9
84	Turbulence studies by fast camera imaging experiments in the TJII stellarator. Journal of Nuclear Materials, 2009, 390-391, 457-460.	2.7	8
85	Model of a source-driven plasma interacting with a wall in an oblique magnetic field. Physics of Plasmas, 2009, 16, 043506.	1.9	8
86	The Visible Intensified Cameras for Plasma Imaging in the TJ-II Stellarator. Contributions To Plasma Physics, 2011, 51, 742-753.	1.1	8
87	Influence of $\hat{\Gamma}^2$ on the self-similarity properties of LHD edge fluctuations. Plasma Physics and Controlled Fusion, 2011, 53, 095010.	2.1	8
88	Effect of fast electrons on the stability of resistive interchange modes in the TJ-II stellarator. Physics of Plasmas, 2016, 23, 062319.	1.9	8
89	A locked mode indicator for disruption prediction on JET and ASDEX upgrade. Fusion Engineering and Design, 2019, 138, 254-266.	1.9	8
90	Impact of magnetic islands on plasma flow and turbulence in W7-X. Nuclear Fusion, 2021, 61, 096011.	3.5	8

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91	Fast simulations for large aspect ratio stellarators with the neoclassical code KNOSOS. Nuclear Fusion, 0, , .	3.5	8
92	Near- and far scrape-off layer transport studies in detached, small-ELM ASDEX Upgrade discharges by means of EMC3-EIRENE. Plasma Physics and Controlled Fusion, 2020, 62, 105016.	2.1	8
93	Coupling between long-range toroidal correlations and radial transport in the TJ-II boundary plasma. Nuclear Fusion, 2011, 51, 063025.	3.5	7
94	Estimation of the plasma blob occurrence rate. Physics of Plasmas, 2018, 25, .	1.9	7
95	Improved neutron activation dosimetry for fusion. Fusion Engineering and Design, 2019, 139, 109-114.	1.9	7
96	Towards a quantitative prediction of the blob detection rate. Plasma Physics and Controlled Fusion, 2016, 58, 054006.	2.1	6
97	ELM-induced cold pulse propagation in ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2019, 61, 045003.	2.1	6
98	Dynamics of flows and confinement in the TJ-II stellarator. Nuclear Fusion, 2013, 53, 104016.	3.5	5
99	Determination of the stochastic layer properties induced by magnetic perturbations via heat pulse experiments at ASDEX upgrade. Nuclear Materials and Energy, 2017, 12, 831-837.	1.3	5
100	Features of near and far scrape-off layer heat fluxes on the Wendelstein 7-X inboard limiters. Nuclear Fusion, 2020, 60, 016014.	3.5	5
101	A feasibility study for a Doppler reflectometer system in the JT-60SA tokamak. Fusion Engineering and Design, 2021, 173, 112803.	1.9	5
102	Inward and outward propagation of the floating potential fluctuations in the plasma edge of the TJ-II stellarator. Nuclear Fusion, 2011, 51, 073027.	3.5	4
103	Shear-flow susceptibility near the low-density transition in TJ-II. Plasma Physics and Controlled Fusion, 2012, 54, 065006.	2.1	4
104	Interpretative and predictive modelling of Joint European Torus collisionality scans. Plasma Physics and Controlled Fusion, 2019, 61, 115004.	2.1	4
105	Observation of Filamentary Structures on the Boundary Region of the LHD Stellarator. Contributions To Plasma Physics, 2011, 51, 92-98.	1.1	3
106	Characterization of Scrape-off Layer Turbulence Changes Induced by a Non-axisymmetric Magnetic Perturbation in an ASDEX Upgrade Low Density L-mode. Contributions To Plasma Physics, 2014, 54, 261-266.	1.1	3
107	Characterization of edge turbulence in different states of divertor detachment using reflectometry in the ASDEX Upgrade tokamak. Plasma Physics and Controlled Fusion, 2018, 60, 055009.	2.1	3
108	Analysis of the outer divertor hot spot activity in the protection video camera recordings at JET. Fusion Engineering and Design, 2019, 139, 115-123.	1.9	3

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109	Dust observation with a visible fast camera in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2013, 55, 065001.	2.1	2
110	SOLPS 5.0 simulations of the high-field side divertor detachment of L-mode plasmas in ASDEX upgrade with convection-dominated radial SOL transport. Nuclear Materials and Energy, 2019, 19, 279-286.	1.3	2
111	Plasma flow measurements based on charge exchange recombination spectroscopy in the Wendelstein 7-X stellarator. Nuclear Fusion, 2022, 62, 106005.	3.5	2
112	Measurement of N+ flows in the high-field side scrape-off layer of ASDEX upgrade with different degrees of inner divertor detachment. Nuclear Materials and Energy, 2017, 12, 935-941.	1.3	1
113	Population modelling of the He II energy levels in tokamak plasmas: I. Collisional excitation model. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 045001.	1.5	1
114	On the role of density fluctuations in the core turbulent transport of Wendelstein 7-X. Plasma Physics and Controlled Fusion, 0, , .	2.1	1
115	Electric Probe Measurements of the Poloidal Velocity in the Scrape-Off Layer of ASDEX Upgrade. Contributions To Plasma Physics, 2014, 54, 273-278.	1.1	0
116	Advanced probe diagnostics for measurement of electromagnetic properties of turbulent structures at the plasma edge of the TJ-II stellarator. Journal of Physics: Conference Series, 2014, 516, 012011.	0.4	0