

JosÃ© L Velasco

List of Publications by Year in descending order

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Version: 2024-02-01

89
papers

2,141
citations

279798

23
h-index

276875

41
g-index

89
all docs

89
docs citations

89
times ranked

1122
citing authors

#	ARTICLE	IF	CITATIONS
1	Physics design point of high-field stellarator reactors. Nuclear Fusion, 2022, 62, 036024.	3.5	11
2	EUROfusion-theory and advanced simulation coordination (E-TASC): programme and the role of high performance computing. Plasma Physics and Controlled Fusion, 2022, 64, 034005.	2.1	2
3	Plasma flow measurements based on charge exchange recombination spectroscopy in the Wendelstein 7-X stellarator. Nuclear Fusion, 2022, 62, 106005.	3.5	2
4	Turbulent impurity transport simulations in Wendelstein 7-X plasmas. Journal of Plasma Physics, 2021, 87, .	2.1	16
5	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
6	Stability analysis of TJ-II stellarator NBI driven Alfvén eigenmodes in ECRH and ECCD experiments. Nuclear Fusion, 2021, 61, 066019.	3.5	15
7	Study on impurity hole plasmas by global neoclassical simulation. Nuclear Fusion, 2021, 61, 086025.	3.5	6
8	Impact of magnetic islands on plasma flow and turbulence in W7-X. Nuclear Fusion, 2021, 61, 096011.	3.5	8
9	Demonstration of reduced neoclassical energy transport in Wendelstein 7-X. Nature, 2021, 596, 221-226.	27.8	69
10	Scaling laws of the energy confinement time in stellarators without renormalization factors. Nuclear Fusion, 2021, 61, 096036.	3.5	3
11	A model for the fast evaluation of prompt losses of energetic ions in stellarators. Nuclear Fusion, 2021, 61, 116059.	3.5	12
12	Impact of main ion pressure anisotropy on stellarator impurity transport. Nuclear Fusion, 2020, 60, 016035.	3.5	6
13	Effect of ECH/ECCD on energetic-particle-driven MHD modes in helical plasmas. Nuclear Fusion, 2020, 60, 066018.	3.5	19
14	KNOSOS: A fast orbit-averaging neoclassical code for stellarator geometry. Journal of Computational Physics, 2020, 418, 109512.	3.8	21
15	Global calculation of neoclassical impurity transport including the variation of electrostatic potential. Journal of Plasma Physics, 2020, 86, .	2.1	9
16	Investigation of the neoclassical ambipolar electric field in ion-root plasmas on W7-X. Nuclear Fusion, 2020, 60, 036021.	3.5	16
17	Characterization of the radial electric field and edge velocity shear in Wendelstein 7-X. Nuclear Fusion, 2020, 60, 106019.	3.5	14
18	Overview of first Wendelstein 7-X high-performance operation. Nuclear Fusion, 2019, 59, 112004.	3.5	165

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19	Overview of recent TJ-II stellarator results. Nuclear Fusion, 2019, 59, 112019.	3.5	12
20	Validation of global gyrokinetic simulations in stellarator configurations. Nuclear Fusion, 2019, 59, 076029.	3.5	16
21	Turbulence and perpendicular plasma flow asymmetries measured at TJ-II plasmas. Nuclear Fusion, 2019, 59, 076021.	3.5	19
22	Forward modeling of collective Thomson scattering for Wendelstein 7-X plasmas: Electrostatic approximation. Review of Scientific Instruments, 2019, 90, 023501.	1.3	6
23	Core radial electric field and transport in Wendelstein 7-X plasmas. Physics of Plasmas, 2018, 25, .	1.9	47
24	Experimental studies and simulations of hydrogen pellet ablation in the stellarator TJ-II. Nuclear Fusion, 2018, 58, 026025.	3.5	14
25	Stellarator impurity flux driven by electric fields tangent to magnetic surfaces. Nuclear Fusion, 2018, 58, 124005.	3.5	23
26	Towards a new image processing system at Wendelstein 7-X: From spatial calibration to characterization of thermal events. Review of Scientific Instruments, 2018, 89, 123503.	1.3	14
27	On-surface potential and radial electric field variations in electron root stellarator plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 104002.	2.1	14
28	Magnetic configuration effects on the Wendelstein 7-X stellarator. Nature Physics, 2018, 14, 855-860.	16.7	110
29	Large tangential electric fields in plasmas close to temperature screening. Plasma Physics and Controlled Fusion, 2018, 60, 074004.	2.1	20
30	Oscillatory relaxation of zonal flows in a multi-species stellarator plasma. Plasma Physics and Controlled Fusion, 2018, 60, 094003.	2.1	8
31	Electrostatic potential variations on stellarator magnetic surfaces in low collisionality regimes. Journal of Plasma Physics, 2018, 84, .	2.1	17
32	Investigation of turbulence rotation in limiter plasmas at W7-X with newly installed poloidal correlation reflectometer. Nuclear Fusion, 2017, 57, 066023.	3.5	19
33	Major results from the first plasma campaign of the Wendelstein 7-X stellarator. Nuclear Fusion, 2017, 57, 102020.	3.5	128
34	Moderation of neoclassical impurity accumulation in high temperature plasmas of helical devices. Nuclear Fusion, 2017, 57, 016016.	3.5	22
35	Electrostatic potential variation on the flux surface and its impact on impurity transport. Nuclear Fusion, 2017, 57, 056004.	3.5	39
36	Plasma fuelling with cryogenic pellets in the stellarator TJ-II. Nuclear Fusion, 2017, 57, 056039.	3.5	18

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37	Extension of the operational regime of the LHD towards a deuterium experiment. Nuclear Fusion, 2017, 57, 102023.	3.5	116
38	Poloidal correlation reflectometry at W7-X: radial electric field and coherent fluctuations. Plasma Physics and Controlled Fusion, 2017, 59, 105002.	2.1	30
39	The effect of tangential drifts on neoclassical transport in stellarators close to omnigenity. Plasma Physics and Controlled Fusion, 2017, 59, 055014.	2.1	35
40	Observation of Oscillatory Radial Electric Field Relaxation in a Helical Plasma. Physical Review Letters, 2017, 118, 185002.	7.8	20
41	Performance and properties of the first plasmas of Wendelstein 7-X. Plasma Physics and Controlled Fusion, 2017, 59, 014018.	2.1	103
42	3D effects on transport and plasma control in the TJ-II stellarator. Nuclear Fusion, 2017, 57, 102022.	3.5	16
43	Confirmation of the topology of the Wendelstein 7-X magnetic field to better than 1:100,000. Nature Communications, 2016, 7, 13493.	12.8	85
44	Particle transport after pellet injection in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2016, 58, 084004.	2.1	13
45	Parallel impurity dynamics in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2016, 58, 074009.	2.1	10
46	Magnetic well scan and confinement in the TJ-II stellarator. Nuclear Fusion, 2015, 55, 113014.	3.5	11
47	Flow damping in stellarators close to quasisymmetry. Plasma Physics and Controlled Fusion, 2015, 57, 014014.	2.1	5
48	Transport, stability and plasma control studies in the TJ-II stellarator. Nuclear Fusion, 2015, 55, 104014.	3.5	9
49	Electrostatic potential variations along flux surfaces in stellarators. Nuclear Fusion, 2015, 55, 052001.	3.5	24
50	Transport analysis in an electron cyclotron heating power scan of TJ-II plasmas. Plasma Physics and Controlled Fusion, 2014, 56, 075024.	2.1	4
51	Optimizing stellarators for large flows. Plasma Physics and Controlled Fusion, 2014, 56, 094003.	2.1	10
52	Studying the impurity charge and main ion mass dependence of impurity confinement in ECR-heated TJ-II stellarator. Plasma Physics and Controlled Fusion, 2014, 56, 124007.	2.1	19
53	Compressible impurity flow in the TJ-II stellarator. Nuclear Fusion, 2014, 54, 013008.	3.5	13
54	Stellarators close to quasisymmetry. Plasma Physics and Controlled Fusion, 2013, 55, 125014.	2.1	25

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55	Transport in threshold plasmas for a confinement transition in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2013, 55, 015001.	2.1	10
56	Studies of the fast ion energy spectra in TJ-II. Physics of Plasmas, 2013, 20, 022507.	1.9	4
57	Incompressibility of impurity flows in low density TJ-II plasmas and comparison with neoclassical theory. Nuclear Fusion, 2013, 53, 023003.	3.5	33
58	Inter-machine validation study of neoclassical transport modelling in medium- to high-density stellarator-heliotron plasmas. Nuclear Fusion, 2013, 53, 063022.	3.5	40
59	Damping of radial electric field fluctuations in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2013, 55, 124044.	2.1	14
60	Collisionless damping of flows in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2013, 55, 014015.	2.1	20
61	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
62	Dynamics of flows and confinement in the TJ-II stellarator. Nuclear Fusion, 2013, 53, 104016.	3.5	5
63	Stellarator optimization under several criteria using metaheuristics. Plasma Physics and Controlled Fusion, 2013, 55, 014003.	2.1	6
64	Vanishing Neoclassical Viscosity and Physics of the Shear Layer in Stellarators. Physical Review Letters, 2012, 109, 135003.	7.8	34
65	Study of the neoclassical radial electric field of the TJ-II flexible heliac. Plasma Physics and Controlled Fusion, 2012, 54, 015005.	2.1	19
66	ISDEP: Integrator of stochastic differential equations for plasmas. Computer Physics Communications, 2012, 183, 1877-1883.	7.5	13
67	Sequence determinants of protein folding rates: Positive correlation between contact energy and contact range indicates selection for fast folding. Proteins: Structure, Function and Bioinformatics, 2012, 80, 2287-2304.	2.6	10
68	Overview of TJ-II experiments. Nuclear Fusion, 2011, 51, 094022.	3.5	24
69	Calculation of the bootstrap current profile for the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2011, 53, 115014.	2.1	27
70	Impact of 3D features on ion collisional transport in ITER. Nuclear Fusion, 2010, 50, 125007.	3.5	7
71	Spin glass phase in the four-state three-dimensional Potts model. Physical Review B, 2009, 79, .	3.2	14
72	Finite orbit width effect in ion collisional transport in TJ-II. Physics of Plasmas, 2009, 16, 052303.	1.9	15

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73	Confinement transitions in TJ-II under Li-coated wall conditions. Nuclear Fusion, 2009, 49, 104018.	3.5	75
74	Flux-expansion divertor studies in TJ-II. Nuclear Fusion, 2009, 49, 085019.	3.5	8
75	Simulating spin systems on IANUS, an FPGA-based computer. Computer Physics Communications, 2008, 178, 208-216.	7.5	57
76	Ion heating in transitions to CERC in the stellarator TJ-II. Nuclear Fusion, 2008, 48, 065008.	3.5	12
77	Critical properties of the four-state commutative random permutation glassy Potts model in three and four dimensions. Physical Review B, 2008, 77, .	3.2	12
78	Nonequilibrium Spin-Glass Dynamics from Picoseconds to a Tenth of a Second. Physical Review Letters, 2008, 101, 157201.	7.8	77
79	The search for a flux-expansion divertor in TJ-II. , 2008, , .		0
80	A new code for collisional drift kinetic equation solving. , 2008, , .		2
81	Ion kinetic transport in TJ-II. , 2008, , .		0
82	The Particle Flux Structure and the Search for a Flux-Expansion Divertor in TJ-II. Plasma and Fusion Research, 2008, 3, S1009-S1009.	0.7	4
83	Ion kinetic transport in the presence of collisions and electric field in TJ-II ECRH plasmas. Plasma Physics and Controlled Fusion, 2007, 49, 753-776.	2.1	23
84	lanus: an adaptive FPGA computer. Computing in Science and Engineering, 2006, 8, 41-49.	1.2	24
85	Poster reception—IANUS. , 2006, , .		0
86	Numerical study of the enlarged O(5) symmetry of the 3D antiferromagnetic RP2 spin model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 628, 281-290.	4.1	14
87	An experimental characterization of core turbulence regimes in Wendelstein 7-X. Nuclear Fusion, 0, , .	3.5	13
88	Fast simulations for large aspect ratio stellarators with the neoclassical code KNOSOS. Nuclear Fusion, 0, , .	3.5	8
89	On the role of density fluctuations in the core turbulent transport of Wendelstein 7-X. Plasma Physics and Controlled Fusion, 0, , .	2.1	1