

Emilia R Solano

List of Publications by Year in descending order

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106
papers

2,841
citations

147801

31
h-index

197818

49
g-index

107
all docs

107
docs citations

107
times ranked

2039
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	3.5	150
2	Observation of Zero Current Density in the Core of JET Discharges with Lower Hybrid Heating and Current Drive. Physical Review Letters, 2001, 87, 115001.	7.8	137
3	Equilibrium analysis of iron core tokamaks using a full domain method. Nuclear Fusion, 1992, 32, 1351-1360.	3.5	113
4	Isotope effects on L-H threshold and confinement in tokamak plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 014045.	2.1	98
5	Lâ€“H power threshold studies in JET with Be/W and C wall. Nuclear Fusion, 2014, 54, 023007.	3.5	91
6	Analytical tokamak equilibrium for shaped plasmas. Physics of Plasmas, 1996, 3, 1176-1178.	1.9	88
7	Overview of the JET preparation for deuteriumâ€“tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
8	Pedestal confinement and stability in JET-ILW ELMy H-modes. Nuclear Fusion, 2015, 55, 113031.	3.5	82
9	H-mode pedestal scaling in DIII-D, ASDEX Upgrade, and JET. Physics of Plasmas, 2011, 18, 056120.	1.9	76
10	Gyrokinetic analysis and simulation of pedestals to identify the culprits for energy losses using â€“fingerprintsâ€™. Nuclear Fusion, 2019, 59, 096001.	3.5	76
11	Confinement transitions in TJ-II under Li-coated wall conditions. Nuclear Fusion, 2009, 49, 104018.	3.5	75
12	Efficient generation of energetic ions in multi-ion plasmas by radio-frequency heating. Nature Physics, 2017, 13, 973-978.	16.7	73
13	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
14	Optimization of ICRH for core impurity control in JET-ILW. Nuclear Fusion, 2016, 56, 036022.	3.5	59
15	Tractable flux-driven temperature, density, and rotation profile evolution with the quasilinear gyrokinetic transport model QuaLiKiz. Plasma Physics and Controlled Fusion, 2017, 59, 124005.	2.1	57
16	Overview of the JET results. Nuclear Fusion, 2015, 55, 104001.	3.5	50
17	Global and pedestal confinement in JET with a Be/W metallic wall. Nuclear Fusion, 2014, 54, 043001.	3.5	47
18	Overview of JET results. Nuclear Fusion, 2009, 49, 104006.	3.5	46

#	ARTICLE	IF	CITATIONS
19	Pedestal and ELM response to impurity seeding in JET advanced scenario plasmas. Nuclear Fusion, 2008, 48, 095004.	3.5	44
20	Pedestal width and ELM size identity studies in JET and DIII-D; implications for ITER. Plasma Physics and Controlled Fusion, 2009, 51, 124051.	2.1	44
21	Overview of JET results. Nuclear Fusion, 2003, 43, 1540-1554.	3.5	38
22	Overview of TJ-II experiments. Nuclear Fusion, 2005, 45, S266-S275.	3.5	37
23	Observation of Confined Current Ribbon in JET Plasmas. Physical Review Letters, 2010, 104, 185003.	7.8	37
24	Characterisation of highly radiating neon seeded plasmas in JET-ILW. Nuclear Fusion, 2019, 59, 126031.	3.5	37
25	Equilibrium and stability studies for an iron core tokamak with a poloidal divertor. Nuclear Fusion, 1990, 30, 1107-1115.	3.5	36
26	Understanding the physics of ELM pacing via vertical kicks in JET in view of ITER. Nuclear Fusion, 2016, 56, 026001.	3.5	36
27	Neutron spectroscopy measurements of 14 MeV neutrons at unprecedented energy resolution and implications for deuterium-tritium fusion plasma diagnostics. Measurement Science and Technology, 2018, 29, 045502.	2.6	35
28	Analytical calculation of neutral transport and its effect on ions. Nuclear Fusion, 1992, 32, 3-14.	3.5	34
29	Scenario development for the observation of alpha-driven instabilities in JET DT plasmas. Nuclear Fusion, 2018, 58, 082005.	3.5	34
30	Dependence on plasma shape and plasma fueling for small edge-localized mode regimes in TCV and ASDEX Upgrade. Nuclear Fusion, 2019, 59, 086020.	3.5	34
31	The impact of large ELMs on JET. Journal of Nuclear Materials, 2009, 390-391, 755-759.	2.7	32
32	The formation and evolution of extreme shear reversal in JET and its influence on local thermal transport*. Plasma Physics and Controlled Fusion, 2002, 44, 1105-1125.	2.1	29
33	Development of burning plasma and advanced scenarios in the DIII-D tokamak. Nuclear Fusion, 2005, 45, S86-S97.	3.5	29
34	Tungsten transport and sources control in JET ITER-like wall H-mode plasmas. Journal of Nuclear Materials, 2015, 463, 85-90.	2.7	29
35	Axisymmetric oscillations at L-H transitions in JET: M-mode. Nuclear Fusion, 2017, 57, 022021.	3.5	29
36	Modelling of JET hybrid plasmas with emphasis on performance of combined ICRF and NBI heating. Nuclear Fusion, 2018, 58, 106037.	3.5	29

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37	Plasma confinement at JET. Plasma Physics and Controlled Fusion, 2016, 58, 014034.	2.1	28
38	Development in the DIII-D tokamak of advanced operating scenarios and associated control techniques for ITER. Nuclear Fusion, 2007, 47, S543-S562.	3.5	27
39	Overview of TJ-II experiments. Nuclear Fusion, 2011, 51, 094022.	3.5	24
40	Experimental investigation of geodesic acoustic modes on JET using Doppler backscattering. Nuclear Fusion, 2016, 56, 106026.	3.5	24
41	Impact of divertor geometry on H-mode confinement in the JET metallic wall. Nuclear Fusion, 2017, 57, 086025.	3.5	24
42	Role of the separatrix density in the pedestal performance in deuterium low triangularity JET-ILW plasmas and comparison with JET-C. Nuclear Fusion, 2021, 61, 126054.	3.5	24
43	Edge parameter operational space and trajectories for ITER. Plasma Physics and Controlled Fusion, 1998, 40, 837-844.	2.1	23
44	Diagnosis and study of Alfvén eigenmodes stability in JET (invited). Review of Scientific Instruments, 2003, 74, 1694-1700.	1.3	21
45	Non-linear MHD simulations of ELMs in JET and quantitative comparisons to experiments. Plasma Physics and Controlled Fusion, 2016, 58, 014026.	2.1	20
46	Experimental validation of an analytical kinetic model for edge-localized modes in JET-ITER-like wall. Nuclear Fusion, 2018, 58, 066006.	3.5	20
47	Observation of enhanced ion particle transport in mixed H/D isotope plasmas on JET. Nuclear Fusion, 2018, 58, 076022.	3.5	20
48	ELM frequency feedback control on JET. Nuclear Fusion, 2015, 55, 063004.	3.5	19
49	The effect of charge exchange on plasma flows. Physics of Fluids B, 1992, 4, 2675-2676.	1.7	18
50	Inboard and outboard electron temperature profile measurements in JET using ECE diagnostics. Plasma Physics and Controlled Fusion, 2010, 52, 085010.	2.1	18
51	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
52	Study of transport in the flexible heliac TJ-II. Nuclear Fusion, 1988, 28, 157-168.	3.5	16
53	Overview of JET results in support of the ITER physics basis. Nuclear Fusion, 2001, 41, 1327-1340.	3.5	16
54	Criticality of the Grad-Shafranov equation: transport barriers and fragile equilibria. Plasma Physics and Controlled Fusion, 2004, 46, L7-L13.	2.1	16

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55	ELMs and strike point jumps. <i>Journal of Nuclear Materials</i> , 2005, 337-339, 747-750.	2.7	16
56	3D effects on transport and plasma control in the TJ-II stellarator. <i>Nuclear Fusion</i> , 2017, 57, 102022.	3.5	16
57	Fusion product losses due to fishbone instabilities in deuterium JET plasmas. <i>Nuclear Fusion</i> , 2018, 58, 014003.	3.5	15
58	Recent progress in H transition studies at JET: tritium, helium, hydrogen and deuterium. <i>Nuclear Fusion</i> , 2022, 62, 076026.	3.5	15
59	Design of the new magnetic sensors for Joint European Torus. <i>Review of Scientific Instruments</i> , 2004, 75, 4311-4313.	1.3	14
60	ELMs and strike point movements. <i>Nuclear Fusion</i> , 2008, 48, 065005.	3.5	14
61	Structure of the JET edge radial electric field in He and D plasmas. <i>Nuclear Fusion</i> , 0, , .	3.5	14
62	Analyses of substantially different plasma current densities and safety factors reconstructed from magnetic diagnostics data. <i>Nuclear Fusion</i> , 2011, 51, 103044.	3.5	13
63	Overview of recent TJ-II stellarator results. <i>Nuclear Fusion</i> , 2019, 59, 112019.	3.5	12
64	Long-lived coupled peeling ballooning modes preceding ELMs on JET. <i>Nuclear Fusion</i> , 2019, 59, 056004.	3.5	11
65	Rotation in Ohmically heated tokamaks: Experiment and theory. <i>Physics of Fluids B</i> , 1993, 5, 2485-2490.	1.7	10
66	An analytical expression for ion velocities at the wall including the sheath electric field and surface biasing for erosion modeling at JET ILW. <i>Nuclear Materials and Energy</i> , 2017, 12, 341-345.	1.3	10
67	Peculiarity of highly radiating multi-impurity seeded H-mode plasmas on JET with ITER-like wall. <i>Physica Scripta</i> , 2020, T171, 014055.	2.5	10
68	H-mode development in TEXT-U limiter plasmas. <i>Plasma Physics and Controlled Fusion</i> , 1996, 38, 1117-1125.	2.1	9
69	Overview of TJ-II experiments. <i>Nuclear Fusion</i> , 2007, 47, S677-S685.	3.5	9
70	Transport, stability and plasma control studies in the TJ-II stellarator. <i>Nuclear Fusion</i> , 2015, 55, 104014.	3.5	9
71	L-H transition threshold studies in Helium plasmas at JET. <i>Nuclear Fusion</i> , 0, , .	3.5	9
72	Fast ion orbits in spherical tokamaks. <i>Physics of Plasmas</i> , 1996, 3, 1187-1188.	1.9	8

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73	Overview of results and possibilities for fast particle research on JET. Nuclear Fusion, 2002, 42, 1014-1028.	3.5	8
74	The Role of Combined ICRF and NBI Heating in JET Hybrid Plasmas in Quest for High D-T Fusion Yield. EPJ Web of Conferences, 2017, 157, 03032.	0.3	8
75	Impact of divertor configuration on recycling neutral fluxes for ITER-like wall in JET H-mode plasmas. Plasma Physics and Controlled Fusion, 2020, 62, 035006.	2.1	8
76	The power threshold of H-mode access in mixed hydrogenâ€“tritium and pure tritium plasmas at JET with ITER-like wall. Nuclear Fusion, 2022, 62, 086005.	3.5	8
77	Determination of plasma stability using resonant field amplification in JET. Nuclear Fusion, 2012, 52, 083018.	3.5	7
78	Magnetic phase transitions in plasmas and transport barriers. Nuclear Fusion, 2012, 52, 114017.	3.5	7
79	Main chamber wall plasma loads in JET-ITER-like wall at high radiated fraction. Nuclear Materials and Energy, 2017, 12, 234-240.	1.3	7
80	Modelling of combined ICRF and NBI heating in JET hybrid plasmas. EPJ Web of Conferences, 2017, 157, 03015.	0.3	7
81	Identity of the JET M-mode and the ASDEX Upgrade I-phase phenomena. Nuclear Fusion, 2020, 60, 056004.	3.5	7
82	Isotope removal experiment in JET-ILW in view of T-removal after the 2nd DT campaign at JET. Physica Scripta, 2022, 97, 044001.	2.5	7
83	Formation, sustainment and characteristics of current hole plasmas in DIII-D discharges. Nuclear Fusion, 2008, 48, 015004.	3.5	6
84	Geodesic acoustic mode evolution in L-mode approaching the Lâ€“H transition on JET. Plasma Physics and Controlled Fusion, 2019, 61, 075007.	2.1	6
85	Towards understanding reactor relevant tokamak pedestals. Nuclear Fusion, 0, , .	3.5	6
86	Mixed hydrogen-deuterium plasmas on JET ILW. Nuclear Fusion, 2020, 60, 096030.	3.5	6
87	Understanding tungsten erosion during inter/intra-ELM periods in He-dominated JET-ILW plasmas. Physica Scripta, 0, , .	2.5	6
88	Effect of asymmetric sources on tokamak neoclassical transport in the plateau regime. Physics of Fluids B, 1990, 2, 2113-2117.	1.7	5
89	Vacuum compatible, variable crossâ€“section magnetic coil diagnostic used in digital feedback control of plasma position in TEXTâ€“Upgrade. Review of Scientific Instruments, 1995, 66, 461-463.	1.3	5
90	Experimental Edge Results and Multimachine Comparisons. Contributions To Plasma Physics, 1998, 38, 11-19.	1.1	5

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91	Dynamics of flows and confinement in the TJ-II stellarator. Nuclear Fusion, 2013, 53, 104016.	3.5	5
92	Observations with fast visible cameras in high power Deuterium plasma experiments in the JET ITER-like wall tokamak. Nuclear Materials and Energy, 2020, 25, 100837.	1.3	5
93	The design of a new JET divertor for high triangularity and high current scenarios. Fusion Engineering and Design, 2003, 66-68, 407-411.	1.9	3
94	Effect of the minority concentration on ion cyclotron resonance heating in presence of the ITER-like wall in JET. , 2014, , .		3
95	Radial variation of heat transport in L-mode JET discharges. Nuclear Fusion, 2019, 59, 056006.	3.5	3
96	Role of NBI fuelling in contributing to density peaking between the ICRH and NBI identity plasmas on JET. Nuclear Fusion, 2022, 62, 066008.	3.5	3
97	Effect of Plasma Minor Radius Changes on Tokamak Position Stability. Plasma Physics and Controlled Fusion, 1990, 32, 759-762.	2.1	2
98	Neoclassical kinetic theory near an X point: Plateau regime. Physics of Plasmas, 1994, 1, 548-551.	1.9	2
99	Alternative concepts: A report to the Fusion Energy Sciences Advisory Committee. Journal of Fusion Energy, 1996, 15, 249-280.	1.2	2
100	Measuring gross beryllium erosion with visible cameras in JET. Nuclear Fusion, 2022, 62, 126001.	3.5	2
101	Summary of the Workshop on Electric Fields, Turbulence and Self-organization in Magnetized Plasmas (EFTSOMP) 2009: 6â€“7 July 2009, Sofia, Bulgaria. Nuclear Fusion, 2010, 50, 047001.	3.5	1
102	Poloidal field electromagnetic engineering design for the TEXT upgrade. , 0, , .		0
103	A study for the installation of the TEXT heavy-ion beam probe on DIII-D. Review of Scientific Instruments, 1997, 68, 320-323.	1.3	0
104	Variational coordinate transformation in plasma physics. Physics of Plasmas, 2009, 16, 112505.	1.9	0
105	Plasma core power exhaust in ELMy H-Mode in JET with ITER-Like Wall. Plasma Physics and Controlled Fusion, 2018, 60, 075004.	2.1	0
106	Understanding JET-C quiescent phases with edge harmonic magnetohydrodynamic activity and comparison with behaviour under ITER-like wall conditioning. Plasma Physics and Controlled Fusion, 0, , .	2.1	0