

Luis Garcia

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2630339/publications.pdf>

Version: 2024-02-01

119
papers

2,565
citations

257450

24
h-index

223800

46
g-index

122
all docs

122
docs citations

122
times ranked

1154
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of the TJ-II stellarator research programme towards model validation in fusion plasmas. Nuclear Fusion, 2022, 62, 042025.	3.5	9
2	Theoretical study of the Alfvén eigenmode stability in CFETR steady state discharges. Nuclear Fusion, 2022, 62, 036005.	3.5	5
3	The impact of radial electric fields and plasma rotation on intermittence in TJ-II. Plasma Physics and Controlled Fusion, 2022, 64, 055006.	2.1	2
4	Study of the Alfvén eigenmodes stability in CFQS plasma using a Landau closure model. Nuclear Fusion, 2021, 61, 026023.	3.5	10
5	Effects of negative triangularity shaping on energetic particle driven Alfvén eigenmodes in DIII-D. Nuclear Fusion, 2021, 61, 126020.	3.5	6
6	MHD stability of JT-60SA operation scenarios driven by passing energetic particles for a hot Maxwellian model. Nuclear Fusion, 2020, 60, 096009.	3.5	7
7	Intermittence and turbulence in fusion devices. Plasma Physics and Controlled Fusion, 2020, 62, 025011.	2.1	8
8	Effect of the tangential NBI current drive on the stability of pressure and energetic particle driven MHD modes in LHD plasma. Nuclear Fusion, 2020, 60, 026016.	3.5	10
9	The localization of low order rational surfaces based on the intermittence parameter in the TJ-II stellarator. Nuclear Fusion, 2020, 60, 056010.	3.5	5
10	Theoretical analysis of energetic-ion-driven resistive interchange mode stabilization strategies using a Landau closure model. Nuclear Fusion, 2020, 60, 046013.	3.5	8
11	Identification and characterization of topological structures of turbulence in magnetic confined plasmas. Plasma Physics and Controlled Fusion, 2020, 62, 115013.	2.1	2
12	Modeling of the ECCD injection effect on the Heliotron J and LHD plasma stability. Nuclear Fusion, 2020, 60, 112015.	3.5	10
13	Study of Alfvén eigenmodes stability in plasma with multiple NBI driven energetic particle species. Physics of Plasmas, 2019, 26, 062502.	1.9	10
14	Overview of recent TJ-II stellarator results. Nuclear Fusion, 2019, 59, 112019.	3.5	12
15	Analysis of Alfvén eigenmode destabilization in ITER using a Landau closure model. Nuclear Fusion, 2019, 59, 076036.	3.5	8
16	Subdominant modes and optimization trends of DIII-D reverse magnetic shear configurations. Nuclear Fusion, 2019, 59, 046017.	3.5	10
17	The Radial Propagation of Heat in Strongly Driven Non-Equilibrium Fusion Plasmas. Entropy, 2019, 21, 148.	2.2	9
18	Analysis of the MHD stability and energetic particles effects on EIC events in LHD plasma using a Landau-closure model. Nuclear Fusion, 2019, 59, 046008.	3.5	10

#	ARTICLE	IF	CITATIONS
19	Study of radial heat transport in W7-X using the transfer entropy. Nuclear Fusion, 2018, 58, 076002.	3.5	14
20	Filaments in the edge confinement region of TJ-II. Nuclear Fusion, 2018, 58, 026030.	3.5	4
21	Applicability of transfer entropy for the calculation of effective diffusivity in heat transport. Physics of Plasmas, 2018, 25, 102304.	1.9	5
22	Analysis of Alfvén eigenmode destabilization in DIII-D high poloidal $\langle i \rangle^2$ discharges using a Landau closure model. Nuclear Fusion, 2018, 58, 076017.	3.5	19
23	Analysis of Alfvén eigenmode destabilization by energetic particles in Large Helical Device using a Landau-closure model. Nuclear Fusion, 2017, 57, 046018.	3.5	18
24	The impact of magnetic shear on the dynamics of a seeded 3D filament in slab geometry. Nuclear Materials and Energy, 2017, 12, 798-807.	1.3	3
25	Analysis of Alfvén eigenmodes destabilization by energetic particles in TJ-II using a Landau-closure model. Nuclear Fusion, 2017, 57, 126019.	3.5	15
26	Radial correlation length across magnetic islands: Simulations and experiments. Physics of Plasmas, 2017, 24, 072513.	1.9	2
27	The impact of rational surfaces on radial heat transport in TJ-II. Nuclear Fusion, 2017, 57, 056028.	3.5	18
28	PB3D: A new code for edge 3-D ideal linear peeling-ballooning stability. Journal of Computational Physics, 2017, 330, 997-1009.	3.8	6
29	Relation of plasma flow structures to passive particle tracer orbits. Nuclear Fusion, 2017, 57, 116013.	3.5	2
30	3D effects on transport and plasma control in the TJ-II stellarator. Nuclear Fusion, 2017, 57, 102022.	3.5	16
31	The role of magnetic islands in modifying long range temporal correlations of density fluctuations and local heat transport. Nuclear Fusion, 2016, 56, 016013.	3.5	7
32	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
33	Correlations and non-local transport in a critical-gradient fluctuation model. Journal of Physics: Conference Series, 2016, 775, 012008.	0.4	0
34	The causal relation between turbulent particle flux and density gradient. Physics of Plasmas, 2016, 23, 072307.	1.9	9
35	Width and rugosity of the topological plasma flow structures and their relation to the radial flights of particle tracers. Nuclear Fusion, 2015, 55, 113023.	3.5	3
36	Transport, stability and plasma control studies in the TJ-II stellarator. Nuclear Fusion, 2015, 55, 104014.	3.5	9

#	ARTICLE	IF	CITATIONS
37	Topological structures of the resistive pressure gradient turbulence with averaged poloidal flow. Nuclear Fusion, 2014, 54, 103005.	3.5	8
38	Three-dimensional linear peeling-ballooning theory in magnetic fusion devices. Physics of Plasmas, 2014, 21, 042507.	1.9	4
39	A topological analysis of plasma flow structures. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 375501.	2.1	4
40	Dynamics of flows and confinement in the TJ-II stellarator. Nuclear Fusion, 2013, 53, 104016.	3.5	5
41	Internal disruptions and sawtooth like activity in Large Helical Device. Physics of Plasmas, 2012, 19, 082501.	1.9	10
42	MHD mode activity and the velocity shear layer at TJ-II. Nuclear Fusion, 2012, 52, 013006.	3.5	13
43	A dynamical model for plasma confinement transitions. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 125502.	2.1	8
44	Dynamical Coupling between Gradients and Transport in Fusion Plasmas. Physical Review Letters, 2012, 108, 065001.	7.8	11
45	Overview of TJ-II experiments. Nuclear Fusion, 2011, 51, 094022.	3.5	24
46	Recurrence quantification analysis of simulations of near-marginal dissipative-trapped-electron-mode turbulence. Physics of Plasmas, 2011, 18, 062306.	1.9	5
47	Ballooning Modes Instabilities in Outward LHD Configurations. Plasma and Fusion Research, 2011, 6, 1403013-1403013.	0.7	3
48	Tracer particle trapping times in pressure-gradient-driven turbulence in toroidal geometry and their connection to the dynamics of large-scale cycles. Plasma Physics and Controlled Fusion, 2010, 52, 105005.	2.1	2
49	Topological characterization of the transition from laminar regime to fully developed turbulence in the resistive pressure-gradient-driven turbulence model. Physical Review E, 2009, 80, 046410.	2.1	3
50	Zonal flows and long-distance correlations during the formation of the edge shear layer in the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2009, 51, 065007.	2.1	10
51	Confinement transitions in TJ-II under Li-coated wall conditions. Nuclear Fusion, 2009, 49, 104018.	3.5	75
52	Emergence and decay rate of the edge plasma flow shear near a critical transition. Plasma Physics and Controlled Fusion, 2009, 51, 015003.	2.1	2
53	Development of net-current free heliotron plasmas in the Large Helical Device. Nuclear Fusion, 2009, 49, 104015.	3.5	54
54	On the nature of transport in near-critical dissipative-trapped-electron-mode turbulence: Effect of a subdominant diffusive channel. Physics of Plasmas, 2008, 15, 112301.	1.9	16

#	ARTICLE	IF	CITATIONS
55	MHD study of the reactor-relevant high-beta regime in the Large Helical Device. Plasma Physics and Controlled Fusion, 2008, 50, 124014.	2.1	72
56	Scale-free transport in fusion plasmas: theory and applications. , 2008, , .		1
57	Topological characterization of flow structures in resistive pressure-gradient-driven turbulence. Physical Review E, 2008, 78, 066402.	2.1	3
58	Pseudochaotic poloidal transport in the laminar regime of the resistive ballooning instabilities. Physics of Plasmas, 2008, 15, 042302.	1.9	6
59	Characterization of Nondiffusive Transport in Plasma Turbulence via a Novel Lagrangian Method. Physical Review Letters, 2008, 101, 165001.	7.8	24
60	Overview of TJ-II experiments. Nuclear Fusion, 2007, 47, S677-S685.	3.5	9
61	Sheared flows and turbulence in fusion plasmas. Plasma Physics and Controlled Fusion, 2007, 49, B303-B311.	2.1	27
62	Study of the interaction between diffusive and avalanche-like transport in near-critical dissipative-trapped-electron-mode turbulence. Physics of Plasmas, 2006, 13, 102308.	1.9	12
63	Mesoscale transport properties induced by near critical resistive pressure-gradient-driven turbulence in toroidal geometry. Physics of Plasmas, 2006, 13, 022310.	1.9	17
64	Critical transition for the edge shear layer formation: Comparison of model and experiment. Physics of Plasmas, 2006, 13, 122509.	1.9	17
65	Avalanche properties in a transport model based on critical-gradient fluctuation dynamics. Physics of Plasmas, 2005, 12, 092305.	1.9	9
66	Topological instability along invariant surfaces and pseudochaotic transport. Physical Review E, 2005, 72, 026227.	2.1	9
67	Experimental evidence of coupling between sheared-flow development and an increase in the level of turbulence in the TJ-II stellarator. Physical Review E, 2004, 70, 067402.	2.1	47
68	Topological instability along filamented invariant surfaces. Chaos, 2003, 13, 1175-1187.	2.5	19
69	Effect of \hat{A} and collisionality on the vacuum magnetic field islands in stellarators. Nuclear Fusion, 2003, 43, 553-557.	3.5	9
70	Resistive pressure-gradient-driven instabilities in the transition regime to fully developed turbulence. Physics of Plasmas, 2002, 9, 47-54.	1.9	7
71	A self-organized critical transport model based on critical-gradient fluctuation dynamics. Physics of Plasmas, 2002, 9, 841-848.	1.9	18
72	Ballistic transport phenomena in TJ-II. Nuclear Fusion, 2002, 42, 787-795.	3.5	49

#	ARTICLE	IF	CITATIONS
73	Reynolds stress and shear flow generation. Plasma Physics and Controlled Fusion, 2001, 43, 1377-1395.	2.1	11
74	Sheared flow amplification by vacuum magnetic islands in stellarator plasmas. Physics of Plasmas, 2001, 8, 4111-4119.	1.9	50
75	Role of rational surfaces on fluctuations and transport in the plasma edge of the TJ-II stellarator. European Physical Journal D, 2000, 50, 1463-1470.	0.4	8
76	Generation of sheared poloidal flows via Reynolds stress and transport barrier physics. Plasma Physics and Controlled Fusion, 2000, 42, A153-A160.	2.1	71
77	Design studies of low aspect ratio quasi-omnigenous stellarators. Nuclear Fusion, 2000, 40, 563-567.	3.5	10
78	Full torus Landau fluid calculations of ion temperature gradient-driven turbulence in cylindrical geometry. Physics of Plasmas, 2000, 7, 5013-5022.	1.9	15
79	Effect of poloidally asymmetric sheared flow on resistive ballooning turbulence. Physics of Plasmas, 1999, 6, 3910-3917.	1.9	6
80	Spatiotemporal structure of resistive pressure-gradient-driven turbulence. Physics of Plasmas, 1999, 6, 107-115.	1.9	14
81	Kinetic effects on ideal ballooning stability of the TJ-II heliac device. Nuclear Fusion, 1998, 38, 1511-1521.	3.5	3
82	Numerical Tokamak Turbulence calculations on the CRAY T3E. , 1997, , .		0
83	Compressibility effects on ideal and resistive ballooning stability in the TJ-II heliac device. Nuclear Fusion, 1997, 37, 1363-1373.	3.5	14
84	Resistive pressure gradient-driven turbulence at stellarator plasma edge. Physics of Plasmas, 1997, 4, 3282-3292.	1.9	7
85	Comparison of the Calculations of the Stability Properties of a Specific Stellarator Equilibrium with Different MHD Stability Codes. Journal of Computational Physics, 1996, 128, 43-57.	3.8	19
86	Dynamics of second-order phase transitions in resistive pressure-gradient-driven turbulence. Physics of Plasmas, 1995, 2, 2744-2752.	1.9	43
87	Wavelet bicoherence: A new turbulence analysis tool. Physics of Plasmas, 1995, 2, 3017-3032.	1.9	308
88	Theory of electric field curvature effects on long-wavelength drift wave turbulence. Physics of Plasmas, 1994, 1, 1142-1153.	1.9	33
89	Drift Wave Turbulence in a Plasma with Sheared Flow. Journal of Computational Physics, 1994, 114, 100-112.	3.8	1
90	Resistive pressure-gradient-driven turbulence with self-consistent flow profile evolution. Physics of Fluids B, 1993, 5, 1491-1505.	1.7	69

#	ARTICLE	IF	CITATIONS
91	Effect of a poloidal shear flow on the probability of accessing the multiple saturated states in the resistive interchange instability. Physics of Fluids B, 1993, 5, 1795-1803.	1.7	15
92	Theory of shear flow effects on long-wavelength drift wave turbulence. Physics of Fluids B, 1992, 4, 3115-3131.	1.7	82
93	Equilibrium, Stability, and Deeply Trapped Energetic Particle Confinement Calculations for $l = 2$ Torsatron/Heliotron Configurations. Fusion Science and Technology, 1991, 19, 217-233.	0.6	14
94	Electron diamagnetic effects on the resistive pressure-gradient-driven turbulence and poloidal flow generation. Physics of Fluids B, 1991, 3, 1438-1444.	1.7	91
95	TJ-II Project: A Flexible Helic Stellarator. Fusion Science and Technology, 1990, 17, 131-139.	0.6	174
96	Low- n stability calculations for three-dimensional stellarator configurations. Physics of Fluids B, 1990, 2, 2162-2167.	1.7	25
97	Ideal Mercier stability for the TJ-II flexible Helic. Nuclear Fusion, 1990, 30, 2597-2609.	3.5	17
98	Plasma Turbulence Calculations On Supercomputers. The International Journal of Supercomputer Applications, 1990, 4, 97-110.	0.5	3
99	Fluctuation spectrum of resistive pressure-gradient-driven turbulence. Physics of Fluids B, 1989, 1, 119-133.	1.7	11
100	Finite pressure equilibrium effects on helical ripple transport in torsatrons. Nuclear Fusion, 1988, 28, 871-879.	3.5	2
101	Low-aspect-ratio torsatron configurations. Nuclear Fusion, 1988, 28, 1195-1207.	3.5	38
102	Theory of resistive pressure-gradient-driven turbulence. Physics of Fluids, 1987, 30, 1388.	1.4	134
103	Role of impurity dynamics in resistivity-gradient-driven turbulence and tokamak edge plasma phenomena. Physics of Fluids, 1987, 30, 1452.	1.4	32
104	Spectrum of resistivity-gradient-driven turbulence. Physics of Fluids, 1986, 29, 2501.	1.4	17
105	3D nonlinear MHD calculations using implicit and explicit time integration schemes. Journal of Computational Physics, 1986, 65, 253-272.	3.8	35
106	Stellarator expansion methods for MHD equilibrium and stability Calculations. Journal of Computational Physics, 1986, 66, 411-444.	3.8	11
107	Toroidal field effects on the stability of a Heliotron configuration. Physics of Fluids, 1986, 29, 3356.	1.4	9
108	The calculation of stellarator equilibria in vacuum flux surface coordinates. Journal of Computational Physics, 1985, 60, 76-96.	3.8	28

#	ARTICLE	IF	CITATIONS
109	Torsatron equilibrium and stability studies. Nuclear Fusion, 1985, 25, 1463-1473.	3.5	12
110	Theory of resistivity-gradient-driven turbulence. Physics of Fluids, 1985, 28, 2147.	1.4	79
111	Equilibrium studies for low-aspect-ratio torsatrons. Nuclear Fusion, 1984, 24, 115-129.	3.5	15
112	Equilibrium and stability properties of high-beta torsatrons. Physics of Fluids, 1983, 26, 3569.	1.4	61
113	Resistive MHD studies of high \hat{I}^2 tokamak plasmas. Computer Physics Communications, 1981, 24, 465-476.	7.5	31
114	A simple model for Poincaré $\frac{1}{2}$ self-stresses. Foundations of Physics, 1980, 10, 137-149.	1.3	5
115	A Classical Model of the Nucleon. Progress of Theoretical Physics, 1980, 64, 671-693.	2.0	11
116	Time-dependent solutions of a classical nonlinear scalar field. Lettere Al Nuovo Cimento Rivista Internazionale Della Societ� Italiana Di Fisica, 1978, 23, 23-26.	0.4	0
117	Topology of 2-D turbulent structures based on intermittence in the TJ-II stellarator. Nuclear Fusion, 0, , .	3.5	3
118	Nonlinear dynamics and transport driven by energetic particle instabilities using a gyro-Landau closure model. Nuclear Fusion, 0, , .	3.5	7
119	Theoretical analysis of the saturation phase of the 1/1 energetic-ion-driven resistive interchange mode. Nuclear Fusion, 0, , .	3.5	5