

# Matteo Zuin

## List of Publications by Year in descending order

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116  
papers

2,590  
citations

186265

28  
h-index

223800

46  
g-index

117  
all docs

117  
docs citations

117  
times ranked

2056  
citing authors

#	ARTICLE	IF	CITATIONS
1	Laparoscopic versus open surgery for left flexure colon cancer: A propensity score matched analysis from an international cohort. <i>Colorectal Disease</i> , 2022, 24, 177-187.	1.4	3
2	Ion heating and energy balance during magnetic reconnection events in the RFX-mod experiment. <i>Nuclear Fusion</i> , 2022, 62, 026030.	3.5	3
3	Resistive MHD modes in hollow cathodes external plasma. <i>Plasma Sources Science and Technology</i> , 2022, 31, 015016.	3.1	3
4	Pre-Breakdown Phenomena Between Vacuum Insulated Electrodes: The Role of Accumulation Points in the Onset of Microdischarges. <i>IEEE Transactions on Plasma Science</i> , 2022, 50, 2695-2699.	1.3	1
5	Alfvén waves in reversed-field pinch and tokamak ohmic plasmas: nonlinear 3D MHD modeling and comparison with RFX-mod. <i>Nuclear Fusion</i> , 2022, 62, 086019.	3.5	3
6	First operations with caesium of the negative ion source SPIDER. <i>Nuclear Fusion</i> , 2022, 62, 086022.	3.5	46
7	Double Poloidal Field System With Superconducting and Conventional Copper Coils for Induced High Loop Voltage: A New Concept and a Feasibility Study for an RFP FFHR. <i>IEEE Transactions on Plasma Science</i> , 2022, , 1-7.	1.3	0
8	10.1063/5.0028566.1. , 2021, , .		0
9	Magnetic Confinement Fusion Experimental Physics: Reversed Field Pinches. , 2021, , 524-553.		1
10	Observation of rotating magnetohydrodynamic modes in the plume of a high-current hollow cathode. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	16
11	Could cold plasma act synergistically with allogeneic mesenchymal stem cells to improve wound skin regeneration in a large size animal model?. <i>Research in Veterinary Science</i> , 2021, 136, 97-110.	1.9	12
12	On the road to ITER NBIs: SPIDER improvement after first operation and MITICA construction progress. <i>Fusion Engineering and Design</i> , 2021, 168, 112622.	1.9	44
13	The Helical Resonator: A Scheme for Radio Frequency Plasma Generation. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7444.	2.5	1
14	Development of a set of movable electrostatic probes to characterize the plasma in the ITER neutral beam negative-ion source prototype. <i>Fusion Engineering and Design</i> , 2021, 169, 112424.	1.9	22
15	Ceramic coatings for arc prevention between plasma facing components. , 2021, , .		2
16	Electrode conditioning for the prevention of DC arc formation within a cold plasma. , 2021, , .		0
17	The phenomenology of reconnection events in the reversed field pinch. <i>Nuclear Fusion</i> , 2020, 60, 056023.	3.5	6
18	Publisher's Note: CRISP: A compact RF ion source prototype for emittance scanner testing [Rev. Sci. Instrum. 91, 033314 (2020)]. <i>Review of Scientific Instruments</i> , 2020, 91, 069902.	1.3	0

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19	Wound healing improvement in large animals using an indirect helium plasma treatment. <i>Clinical Plasma Medicine</i> , 2020, 17-18, 100095.	3.2	17
20	CRISP: A compact RF ion source prototype for emittance scanner testing. <i>Review of Scientific Instruments</i> , 2020, 91, 033314.	1.3	0
21	Turbulent filament properties in L and H-mode regime in the RFX-mod operating as a tokamak. <i>Nuclear Fusion</i> , 2020, 60, 126006.	3.5	10
22	Isoperistaltic Jejunal Loop Interposition after Total Gastrectomy for Gastric Cancer in Patients with Familial Adenomatous Polyposis. <i>Journal of Gastric Cancer</i> , 2020, 20, 225.	2.5	1
23	Designing high efficiency glow discharge cleaning systems. <i>Nuclear Materials and Energy</i> , 2019, 19, 468-472.	1.3	2
24	Upgrades of the RFX-mod reversed field pinch and expected scenario improvements. <i>Nuclear Fusion</i> , 2019, 59, 076027.	3.5	34
25	On the Electrical and Optical Features of the Plasma Coagulation Controller Low Temperature Atmospheric Plasma Jet. <i>Plasma</i> , 2019, 2, 156-167.	1.8	7
26	Technological challenges for the design of the RFX-mod2 experiment. <i>Fusion Engineering and Design</i> , 2019, 146, 692-696.	1.9	23
27	Design of embedded electrostatic sensors for the RFX-mod2 device. <i>Journal of Instrumentation</i> , 2019, 14, C11014-C11014.	1.2	2
28	Antibacterial efficacy and mechanisms of action of low power atmospheric pressure cold plasma: membrane permeability, biofilm penetration and antimicrobial sensitization. <i>Journal of Applied Microbiology</i> , 2018, 125, 398-408.	3.1	75
29	Perspectives in Ophthalmology. , 2018, , 421-430.		0
30	Characterization of a plasma source for biomedical applications by electrical, optical, and chemical measurements. <i>Plasma Processes and Polymers</i> , 2018, 15, 1800105.	3.0	13
31	Design constraints on new vacuum components of RFX-mod2 upgrade using electrical modeling of reversed field pinch plasma. <i>Fusion Engineering and Design</i> , 2018, 136, 1209-1213.	1.9	13
32	A continuously pulsed Reversed Field Pinch core for an ohmically heated hybrid reactor. <i>Fusion Engineering and Design</i> , 2018, 136, 1489-1493.	1.9	7
33	Major results from the first plasma campaign of the Wendelstein 7-X stellarator. <i>Nuclear Fusion</i> , 2017, 57, 102020.	3.5	128
34	Edge plasma properties with 3D magnetic perturbations in RFX-mod. <i>Nuclear Fusion</i> , 2017, 57, 076033.	3.5	7
35	H-mode achievement and edge features in RFX-mod tokamak operation. <i>Nuclear Fusion</i> , 2017, 57, 116039.	3.5	10
36	Overview of progress in European medium sized tokamaks towards an integrated plasma-edge/wall solution <sup>a</sup>. <i>Nuclear Fusion</i> , 2017, 57, 102014.	3.5	23

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37	Runaway electron mitigation by applied magnetic perturbations in RFX-mod tokamak plasmas. Nuclear Fusion, 2017, 57, 016014.	3.5	11
38	Analytical relation between peripheral and central density limit on FTU. Plasma Physics and Controlled Fusion, 2017, 59, 085011.	2.1	1
39	Overview of the RFX-mod fusion science activity. Nuclear Fusion, 2017, 57, 102012.	3.5	27
40	Helical flow in RFX-mod tokamak plasmas. Nuclear Fusion, 2017, 57, 056033.	3.5	2
41	Overview of the TCV tokamak program: scientific progress and facility upgrades. Nuclear Fusion, 2017, 57, 102011.	3.5	52
42	The radiofrequency magnetic dipole discharge. Physics of Plasmas, 2016, 23, 053511.	1.9	1
43	Characterization of electromagnetic fluctuations in a HiPIMS plasma. Plasma Sources Science and Technology, 2016, 25, 065016.	3.1	7
44	On the statistics and features of turbulent structures in RFX-mod. Plasma Physics and Controlled Fusion, 2016, 58, 044009.	2.1	4
45	Comparative studies of electrostatic turbulence induced transport in presence of resonant magnetic perturbations in RFX-mod. Nuclear Fusion, 2015, 55, 113021.	3.5	8
46	Magnetic perturbations as a viable tool for edge turbulence modification. Plasma Physics and Controlled Fusion, 2015, 57, 014027.	2.1	19
47	Electromagnetic turbulent structures: A ubiquitous feature of the edge region of toroidal plasma configurations. Physics of Plasmas, 2015, 22, 012310.	1.9	16
48	Characterization of particle confinement properties in RFX-mod at a high plasma current. Nuclear Fusion, 2015, 55, 043010.	3.5	21
49	The isotope effect in the RFX-mod experiment. Nuclear Fusion, 2015, 55, 043012.	3.5	15
50	Turbulent electromagnetic filaments in actively modulated toroidal plasma edge. Nuclear Fusion, 2015, 55, 063041.	3.5	6
51	Density limit studies in the tokamak and the reversed-field pinch. Nuclear Fusion, 2015, 55, 043007.	3.5	17
52	Overview of the RFX-mod contribution to the international Fusion Science Program. Nuclear Fusion, 2015, 55, 104012.	3.5	18
53	Atmospheric-Pressure Cold Plasma Induces Transcriptional Changes in Ex Vivo Human Corneas. PLoS ONE, 2015, 10, e0133173.	2.5	21
54	Helium Generated Cold Plasma Finely Regulates Activation of Human Fibroblast-Like Primary Cells. PLoS ONE, 2014, 9, e104397.	2.5	69

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55	Spatiotemporal synchronization of drift waves in a magnetron sputtering plasma. <i>Physics of Plasmas</i> , 2014, 21, 102309.	1.9	4
56	Chaoticity threshold in magnetized plasmas: Numerical results in the weak coupling regime. <i>Chaos</i> , 2014, 24, 013118.	2.5	9
57	Tearing modes transition from slow to fast rotation branch in the presence of magnetic feedback. <i>Nuclear Fusion</i> , 2014, 54, 122001.	3.5	14
58	Technical challenges in the construction of the steady-state stellarator Wendelstein 7-X. <i>Nuclear Fusion</i> , 2013, 53, 126001.	3.5	77
59	Towards a plasma treatment of corneal infections. <i>Clinical Plasma Medicine</i> , 2013, 1, 17-24.	3.2	27
60	3D magnetic fields and plasma rotation in RFX-mod tokamak plasmas. <i>Nuclear Fusion</i> , 2013, 53, 113022.	3.5	17
61	Studies of spatial uniformity of glow discharge cleaning plasmas on the RFX-mod device. <i>Journal of Nuclear Materials</i> , 2013, 438, S1164-S1167.	2.7	8
62	Experimental Observation of Microtearing Modes in a Toroidal Fusion Plasma. <i>Physical Review Letters</i> , 2013, 110, 055002.	7.8	21
63	RFX-mod: A multi-configuration fusion facility for three-dimensional physics studies. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	32
64	3D effects on the RFX-mod boundary. <i>Nuclear Fusion</i> , 2013, 53, 073025.	3.5	22
65	Overview of the RFX-mod fusion science programme. <i>Nuclear Fusion</i> , 2013, 53, 104018.	3.5	17
66	Advances in understanding RFX-mod helical plasmas. <i>Nuclear Fusion</i> , 2013, 53, 073048.	3.5	17
67	Dependence of the density limit on the toroidal magnetic field on FTU. <i>Nuclear Fusion</i> , 2013, 53, 023007.	3.5	5
68	Electrostatic properties and active magnetic topology modification in the RFX-mod edge plasma. <i>Nuclear Fusion</i> , 2013, 53, 083026.	3.5	5
69	Interaction between magnetic boundary and first wall recycling in the reversed field pinch. <i>Plasma Physics and Controlled Fusion</i> , 2013, 55, 124013.	2.1	10
70	Density limit experiments on FTU. <i>Nuclear Fusion</i> , 2013, 53, 083002.	3.5	9
71	Transition from order to chaos, and density limit, in magnetized plasmas. <i>Chaos</i> , 2012, 22, 033124.	2.5	11
72	Disinfection of Ocular Cells and Tissues by Atmospheric-Pressure Cold Plasma. <i>PLoS ONE</i> , 2012, 7, e33245.	2.5	97

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73	Parallel and perpendicular flows in the RFX-mod edge region. Journal of Nuclear Materials, 2011, 415, S437-S442.	2.7	4
74	Magnetic diagnostic of SOL-filaments generated by type I ELMs on JET and ASDEX Upgrade. Journal of Nuclear Materials, 2011, 415, S869-S872.	2.7	1
75	Direct Observation of Current in Type-I Edge-Localized-Mode Filaments on the ASDEX Upgrade Tokamak. Physical Review Letters, 2011, 106, 125002.	7.8	33
76	Latest investigations on fluctuations, ELM filaments and turbulent transport in the SOL of ASDEX Upgrade. Nuclear Fusion, 2011, 51, 073023.	3.5	59
77	Internal and external electron transport barriers in the RFX-mod reversed field pinch. Nuclear Fusion, 2011, 51, 073038.	3.5	26
78	Overview of the RFX fusion science program. Nuclear Fusion, 2011, 51, 094023.	3.5	29
79	Alfvén eigenmodes in the RFX-mod reversed-field pinch plasma. Nuclear Fusion, 2011, 51, 083038.	3.5	11
80	Topology and transport in the edge region of RFX-mod helical regimes. Nuclear Fusion, 2011, 51, 073002.	3.5	38
81	Flow Measurements in the Edge Region of the RFX-Mod Experiment. Contributions To Plasma Physics, 2010, 50, 824-829.	1.1	5
82	A Probe Head for Simultaneous Measurements of Electrostatic and Magnetic Fluctuations in ASDEX Upgrade Edge Plasma. Contributions To Plasma Physics, 2010, 50, 860-865.	1.1	8
83	Drift-Alfvén vortex structures in the edge region of a fusion relevant plasma. Nuclear Fusion, 2010, 50, 042002.	3.5	20
84	Resistive g-modes in a reversed-field pinch plasma. Nuclear Fusion, 2010, 50, 052001.	3.5	9
85	A 3D approach to equilibrium, stability and transport studies in RFX-mod improved regimes. Plasma Physics and Controlled Fusion, 2010, 52, 124023.	2.1	35
86	Improvement of the magnetic configuration in the reversed field pinch through successive bifurcations. Physics of Plasmas, 2009, 16, .	1.9	15
87	Direct Measurement of Current Filament Structures in a Magnetic-Confinement Fusion Device. Physical Review Letters, 2009, 102, 165001.	7.8	37
88	Helical equilibria and magnetic structures in the reversed field pinch and analogies to the tokamak and stellarator. Plasma Physics and Controlled Fusion, 2009, 51, 124031.	2.1	43
89	Current sheets during spontaneous reconnection in a current-carrying fusion plasma. Plasma Physics and Controlled Fusion, 2009, 51, 035012.	2.1	29
90	Transport mechanisms in the outer region of RFX-mod. Nuclear Fusion, 2009, 49, 045008.	3.5	17

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91	Improved confinement with internal electron transport barriers in RFX-mod. Nuclear Fusion, 2009, 49, 055009.	3.5	22
92	Current filaments in turbulent magnetized plasmas. Plasma Physics and Controlled Fusion, 2009, 51, 124053.	2.1	13
93	Magnetic order and confinement improvement in high-current regimes of RFX-mod with MHD feedback control. Nuclear Fusion, 2009, 49, 085036.	3.5	69
94	Self-organized helical equilibria as a new paradigm for ohmically heated fusion plasmas. Nature Physics, 2009, 5, 570-574.	16.7	240
95	Magnetic and electrostatic structures measured in the edge region of the RFX-mod experiment. Journal of Nuclear Materials, 2009, 390-391, 448-451.	2.7	19
96	Overview of RFX-mod results. Nuclear Fusion, 2009, 49, 104019.	3.5	43
97	A novel plasma source for sterilization of living tissues. New Journal of Physics, 2009, 11, 115014.	2.9	53
98	Yaglom law for electrostatic turbulence in laboratory magnetized plasmas. Europhysics Letters, 2009, 86, 25001.	2.0	3
99	High current regimes in RFX-mod. Plasma Physics and Controlled Fusion, 2008, 50, 124031.	2.1	44
100	MHD instabilities in magneto-plasma-dynamic thrusters. Plasma Physics and Controlled Fusion, 2008, 50, 124010.	2.1	9
101	3D nonlinear MHD simulations of ultra-low-q plasmas. Nuclear Fusion, 2008, 48, 115010.	3.5	7
102	Active MHD control at high currents in RFX-mod. Nuclear Fusion, 2007, 47, 783-791.	3.5	39
103	Toroidally asymmetric particle transport caused by phase-locking of MHD modes in RFX-mod. Nuclear Fusion, 2007, 47, 1468-1475.	3.5	17
104	Magnetic self organization, MHD active control and confinement in RFX-mod. Plasma Physics and Controlled Fusion, 2007, 49, B359-B369.	2.1	60
105	Coherent structures and transport properties in magnetized plasmas. Plasma Physics and Controlled Fusion, 2007, 49, B267-B280.	2.1	23
106	Kink instability suppression and improved efficiency in magneto-plasma-dynamic thrusters. Applied Physics Letters, 2006, 89, 041504.	3.3	5
107	Active-Feedback Control of the Magnetic Boundary for Magnetohydrodynamic Stabilization of a Fusion Plasma. Physical Review Letters, 2006, 97, 075001.	7.8	96
108	Characterization of a DC magnetron sputtering device. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2005, 24, 261-270.	0.9	4

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109	Further Experimental Evidences of the Development of Kink Instabilities in MPD Thrusters. , 2005, , .		0
110	Kink Instability in Applied-Field Magneto-Plasma-Dynamic Thrusters. Physical Review Letters, 2004, 92, 225003.	7.8	43
111	Critical regimes and magnetohydrodynamic instabilities in a magneto-plasma-dynamic thruster. Physics of Plasmas, 2004, 11, 4761-4770.	1.9	22
112	Experimental investigation of low-frequency waves propagating in a direct current planar magnetron plasma. Physics of Plasmas, 2004, 11, 1938-1946.	1.9	22
113	Kink Instabilities in a Magnetoplasma-dynamic Thruster With and Without External Magnetic Field. , 2004, , .		0
114	Analysis and modelling of the magnetic and plasma profiles during PPCD experiments in RFX. Nuclear Fusion, 2003, 43, 1057-1065.	3.5	25
115	Electrostatic fluctuations in a direct current magnetron sputtering plasma. Physics of Plasmas, 2001, 8, 3042-3050.	1.9	37
116	Dynamics of Ultralow-q plasmas in the RFX-mod device. Nuclear Fusion, 0, , .	3.5	3