Lorenzo Figini

List of Publications by Year
in descending order

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115	1,619	331670	345221
papers	citations	21	36
		h-index	g-index

116	116	116	1696
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Planckpre-launch status: Design and description of the Low Frequency Instrument. Astronomy and Astrophysics, 2010, 520, A4.	5.1	125
2	Electron-cyclotron-current-drive efficiency in DEMO plasmas. Nuclear Fusion, 2013, 53, 013011.	3.5	97
3	Overview of the JET preparation for deuteriumâ€“tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
4	Diagnostics for plasma control â€“ From ITER to DEMO. Fusion Engineering and Design, 2019, 146, 465-472.	1.9	71
5	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
6	The targeted heating and current drive applications for the ITER electron cyclotron system. Physics of Plasmas, 2015, 22, .	1.9	67
7	TORBEAM 2.0, a paraxial beam tracing code for electron-cyclotron beams in fusion plasmas for extended physics applications. Computer Physics Communications, 2018, 225, 36-46.	7.5	51
8	Overview of the JET results. Nuclear Fusion, 2015, 55, 104001.	3.5	50
9	The European Integrated Tokamak Modelling (ITM) effort: achievements and first physics results. Nuclear Fusion, 2014, 54, 043018.	3.5	45
10	On recent results in the modelling of neoclassical-tearing-mode stabilization via electron cyclotron current drive and their impact on the design of the upper EC launcher for ITER. Nuclear Fusion, 2015, 55, 013023.	3.5	37
11	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
12	Lower hybrid current drive for the steady-state scenario. Plasma Physics and Controlled Fusion, 2010, 52, 124031.	2.1	33
13	Overview of JET results. Nuclear Fusion, 2011, 51, 094008.	3.5	33
14	Kink instabilities in high-beta JET advanced scenarios. Nuclear Fusion, 2012, 52, 023006.	3.5	30
15	Observation of short time-scale spectral emissions at millimeter wavelengths with the new CTS diagnostic on the FTU tokamak. Nuclear Fusion, 2017, 57, 076004.	3.5	29
16	Progress of the ECRH Upper Launcher design for ITER. Fusion Engineering and Design, 2014, 89, 1669-1673.	1.9	28
17	Millimeter-Wave Beam Scattering by Field-Aligned Blobs in Simple Magnetized Toroidal Plasmas. Physical Review Letters, 2018, 120, 105001.	7.8	26
18	First principle-based multi-channel integrated modelling in support of the designÂof the Divertor Tokamak Test facility. Nuclear Fusion, 2021, 61, 116068.	3.5	25

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19	Planck pre-launch status: Low Frequency Instrument optics. Astronomy and Astrophysics, 2010, 520, A7.	5.1	23
20	Experiments and modeling on FTU tokamak for EC assisted plasma start-up studies in ITER-like configuration. Nuclear Fusion, 2015, 55, 093025.	3.5	23
21	Overview of progress in European medium sized tokamaks towards an integrated plasma-edge/wall solution ^a. Nuclear Fusion, 2017, 57, 102014.	3.5	23
22	Electron cyclotron power management for control of neoclassical tearing modes in the ITER baseline scenario. Nuclear Fusion, 2018, 58, 016007.	3.5	23
23	Optimization of the ITER electron cyclotron equatorial launcher for improved heating and current drive functional capabilities. Physics of Plasmas, 2014, 21, .	1.9	22
24	The DTT device: System for heating. Fusion Engineering and Design, 2017, 122, 349-355.	1.9	22
25	Status and future development of Heating and Current Drive for the EU DEMO. Fusion Engineering and Design, 2022, 180, 113159.	1.9	22
26	Potential of the ITER electron cyclotron equatorial launcher for heating and current drive at nominal and reduced fields. Nuclear Fusion, 2012, 52, 033005.	3.5	21
27	Conceptual design of the EU DEMO EC-system: main developments and R&D achievements. Nuclear Fusion, 2017, 57, 116009.	3.5	21
28	Physics and operation oriented activities in preparation of the JT-60SA tokamak exploitation. Nuclear Fusion, 2017, 57, 085001.	3.5	20
29	Modelling one-third field operation in the ITER pre-fusion power operation phase. Nuclear Fusion, 2019, 59, 126014.	3.5	19
30	Inboard and outboard electron temperature profile measurements in JET using ECE diagnostics. Plasma Physics and Controlled Fusion, 2010, 52, 085010.	2.1	18
31	Advances in the physics studies for the JT-60SA tokamak exploitation and research plan. Plasma Physics and Controlled Fusion, 2020, 62, 014009.	2.1	18
32	Integration concept of an Electron Cyclotron System in DEMO. Fusion Engineering and Design, 2021, 168, 112653.	1.9	18
33	Advances in the FTU collective Thomson scattering system. Review of Scientific Instruments, 2016, 87, 11E507.	1.3	17
34	SPECE: a code for Electron Cyclotron Emission in tokamaks. AIP Conference Proceedings, 2008, , .	0.4	16
35	Nearing final design of the ITER EC H&CD Upper Launcher. Fusion Engineering and Design, 2019, 146, 23-26.	1.9	16
36	Objectives, physics requirements and conceptual design of an ECRH system for JET. Nuclear Fusion, 2011, 51, 063033.	3.5	14

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37	H-mode plasmas in the pre-fusion power operation 1 phase of the ITER research plan. Nuclear Fusion, 2021, 61, 076012.	3.5	14
38	Planck-LFI flight model feed horns. Journal of Instrumentation, 2009, 4, T12004-T12004.	1.2	13
39	Assessment of the ITER electron cyclotron upper launcher capabilities in view of an optimized design. Plasma Physics and Controlled Fusion, 2015, 57, 054015.	2.1	13
40	Development of helium electron cyclotron wall conditioning on TCV. Nuclear Fusion, 2018, 58, 026018.	3.5	13
41	Progress of DTT ECRH system design. Fusion Engineering and Design, 2021, 168, 112678.	1.9	13
42	First operations with the new Collective Thomson Scattering diagnostic on the Frascati Tokamak Upgrade device. Journal of Instrumentation, 2015, 10, P10007-P10007.	1.2	11
43	The upgraded Collective Thomson Scattering diagnostics of FTU. Fusion Engineering and Design, 2015, 96-97, 733-737.	1.9	11
44	Overview of the FTU results. Nuclear Fusion, 2015, 55, 104005.	3.5	10
45	The Planck-LFI flight model composite waveguides. Journal of Instrumentation, 2009, 4, T12007-T12007.	1.2	9
46	The Planck-LFI flight model ortho-mode transducers. Journal of Instrumentation, 2009, 4, T12005-T12005.	1.2	9
47	Benchmarking of electron cyclotron heating and current drive codes on ITER scenarios within the European Integrated Tokamak Modelling framework. EPJ Web of Conferences, 2012, 32, 01011.	0.3	9
48	Modeling the electron cyclotron emission below the fundamental resonance in ITER. Plasma Physics and Controlled Fusion, 2019, 61, 095002.	2.1	9
49	Measure of electron cyclotron emission at multiple angles in high Te plasmas of JET. Review of Scientific Instruments, 2010, 81, 10D937.	1.3	8
50	Installation, integration and power tests of the new fast ECRH launcher of FTU. Fusion Engineering and Design, 2013, 88, 998-1001.	1.9	8
51	Synthetic Diagnostic for Interpreting the ECE Spectrum on EAST. Fusion Science and Technology, 2018, 74, 154-160.	1.1	8
52	Overview of the FTU results. Nuclear Fusion, 2019, 59, 112015.	3.5	8
53	A locked mode indicator for disruption prediction on JET and ASDEX upgrade. Fusion Engineering and Design, 2019, 138, 254-266.	1.9	8
54	ICRF-code benchmark activity in the framework of the European task-force on integrated Tokamak Modelling. , 2014, , .		7

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55	Overview of the FTU results. Nuclear Fusion, 2017, 57, 102004.	3.5	7
56	Experimental study of high power mm-waves scattering by plasma turbulence in TCV plasmas. EPJ Web of Conferences, 2017, 157, 03008.	0.3	7
57	Measurements of Electron Velocity Distribution Function (invited paper). AIP Conference Proceedings, 2008, , .	0.4	6
58	Antenna system analysis and design for automatic detection and real-time tracking of electron Bernstein waves in FTU. Journal of Instrumentation, 2014, 9, P05001-P05001.	1.2	6
59	Plasma physics and control studies planned in JT-60SA for ITER and DEMO operations and risk mitigation. Plasma Physics and Controlled Fusion, 2022, 64, 054004.	2.1	6
60	Investigation of electron cyclotron wave absorption and current drive in JET. Nuclear Fusion, 2010, 50, 095007.	3.5	5
61	Status of Europeâ€™s contribution to the ITER EC system. EPJ Web of Conferences, 2015, 87, 04004.	0.3	5
62	Experiments on magneto-hydrodynamics instabilities with ECH/ECCD in FTU using a minimal real-time control system. Nuclear Fusion, 2015, 55, 083010.	3.5	5
63	Electron cyclotron stray radiation detection and machine protection system proposal for JT-60SA. Fusion Engineering and Design, 2017, 123, 435-439.	1.9	5
64	Preliminary conceptual design of the DTT EC heating system. Fusion Engineering and Design, 2019, 146, 203-206.	1.9	5
65	Bayesian inference using JETâ€™s microwave diagnostic system. Nuclear Fusion, 2020, 60, 066009.	3.5	5
66	RECENT RESULTS ON THE DISCREPANCY BETWEEN ELECTRON TEMPERATURE MEASUREMENTS IN HIGH TEMPERATURE PLASMAS IN JET. , 2009, , .		5
67	ECRH for JET: A feasibility study. Fusion Engineering and Design, 2011, 86, 805-809.	1.9	4
68	An overview of FTU results. Nuclear Fusion, 2013, 53, 104012.	3.5	4
69	Side emissions during EC injection for PDI studies in FTU tokamak. EPJ Web of Conferences, 2019, 203, 02005.	0.3	4
70	Integrated software for the analysis of high-resolution scattering signals during mm-wave beam injection. Journal of Instrumentation, 2020, 15, C01046-C01046.	1.2	4
71	Effect of cable length in vector measurements of very long millimeter-wave components. IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 3731-3734.	4.6	3
72	In vessel characterization and first power tests on plasma of the Real-Time controllable EC launcher on FTU Tokamak. EPJ Web of Conferences, 2012, 32, 02018.	0.3	3

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73	ECH and ECCD effects on NTMs stabilization by ECRF in JT-60SA tokamak. EPJ Web of Conferences, 2012, 32, 02017.	0.3	3
74	Guidelines for internal optics optimization of the ITER EC H&CD upper launcher. , 2014, , .		3
75	Data analysis tools and coding activity in support of the FTU Collective Thomson Scattering diagnostic. Journal of Instrumentation, 2018, 13, C07006-C07006.	1.2	3
76	EC absorption efficiency in ITER at one-third nominal magnetic field strength. EPJ Web of Conferences, 2019, 203, 01007.	0.3	3
77	Spatial localization of ECE measurement in EAST LHW-heated plasmas. Plasma Science and Technology, 2019, 21, 095103.	1.5	3
78	Design of Electron Cyclotron Resonance Heating protection components for first plasma operations in ITER. Fusion Engineering and Design, 2020, 154, 111547.	1.9	3
79	Calibration and testing of the Planck-LFI QM instrument. , 2006, , .		2
80	Localization of MHD modes and consistency with q-profiles in JET. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 623, 734-737.	1.6	2
81	Production and diagnosis of energetic particles in FAST. Nuclear Fusion, 2012, 52, 023002.	3.5	2
82	A Real-Time system for data acquisition, elaboration and actuator's control for magnetohydrodynamics instabilities in the FTU tokamak. , 2012, , .		2
83	The Real-Time system for MHD activity control in the FTU tokamak. EPJ Web of Conferences, 2012, 32, 02003.	0.3	2
84	A real-time data acquisition and elaboration system for instabilities control in the FTU tokamak. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 720, 186-188.	1.6	2
85	Towards the detection of magnetohydrodynamics instabilities in a fusion reactor. , 2014, , .		2
86	On the criteria guiding the design of the upper electron-cyclotron launcher for ITER. EPJ Web of Conferences, 2015, 87, 01008.	0.3	2
87	Optical modeling and physical performances evaluations for the JT-60SA ECRF antenna. AIP Conference Proceedings, 2015, , .	0.4	2
88	Detection of neoclassical tearing modes in demo using the electron cyclotron emission. Fusion Engineering and Design, 2017, 123, 628-631.	1.9	2
89	Overview of the ECE measurements on EAST. EPJ Web of Conferences, 2019, 203, 03008.	0.3	2
90	FEASIBILITY OF AN ECRH SYSTEM FOR JET: OPTIONS FOR AN ECRH/ECCD LAUNCHER DESIGN. , 2011, , .		2

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91	Millimeterwave tests on passive components of PLANCK-LFI. , 0, , .		1
92	Studies on LH-generated Fast Electron Tail Using the Oblique ECE Diagnostic at JET. AIP Conference Proceedings, 2009, , .	0.4	1
93	Studies on absorption of EC waves in assisted startup experiment on FTU. EPJ Web of Conferences, 2012, 32, 02016.	0.3	1
94	Capabilities of the ITER Electron Cyclotron Equatorial Launcher for Heating and Current Drive. EPJ Web of Conferences, 2012, 32, 01006.	0.3	1
95	Preparation for the operation of ITER: EU study on the plasma control system. Fusion Engineering and Design, 2014, 89, 2430-2434.	1.9	1
96	Fast events detection with the CTS diagnostic on FTU and plans for improvement. EPJ Web of Conferences, 2017, 149, 03017.	0.3	1
97	Tracking of neoclassical tearing modes in TCV using the electron cyclotron emission diagnostics in quasi-in-line configuration. Fusion Engineering and Design, 2019, 146, 666-670.	1.9	1
98	Design validation of in-vessel mirrors and beam dump for first plasma operations in ITER. Fusion Engineering and Design, 2021, 172, 112717.	1.9	1
99	Implications of parasitic absorption of Electron Cyclotron waves on ITER operation around half-field. Nuclear Fusion, 0, , .	3.5	1
100	FEASIBILITY OF AN ECRH SYSTEM FOR JET: PROJECT OVERVIEW. , 2011, , .		1
101	Characterization and performance of the planck-LFI flight model passive components. , 2007, , .		0
102	Comparison of Inboard-Outboard Pedestal Temperature Measurements in JET Using ECE Diagnostics. AIP Conference Proceedings, 2008, , .	0.4	0
103	Assessment of Electron-Cyclotron-Current-Drive-Assisted Operation in DEMO. EPJ Web of Conferences, 2012, 32, 01005.	0.3	0
104	Optimization of the ITER EC H&CD functional capabilities while relaxing the engineering constraints. , 2014, , .		0
105	EC assisted start-up experiments reproduction in FTU and AUG for simulations of the ITER case. , 2014, , .		0
106	Assessment of the ITER EC Upper Launcher Performance. EPJ Web of Conferences, 2015, 87, 01011.	0.3	0
107	Beam propagation and stray radiation in the ITER EC H&CD Upper Launcher. EPJ Web of Conferences, 2015, 87, 02018.	0.3	0
108	EC power management in ITER for NTM control: the path from the commissioning phase to demonstration discharges. EPJ Web of Conferences, 2017, 157, 03041.	0.3	0

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109	Quasi-Optical design of ECRH mirrors for ITER first plasma operations. , 2019, , .		0
110	Numerical analysis of the spectral broadening of the EC resonance for Gaussian beams propagating in inhomogeneous plasmas, with applications to EC H&CD in ITER. Physics of Plasmas, 2020, 27, 072509.	1.9	0
111	The RF heating systems of Italian DTT. AIP Conference Proceedings, 2020, , .	0.4	0
112	Conceptual design of electron cyclotron emission diagnostic for Chinese Fusion Engineering Testing Reactor. Fusion Engineering and Design, 2021, 164, 112175.	1.9	0
113	RESULTS AND PROSPECTS OF OBLIQUE ECE MEASUREMENTS. , 2009, , .		0
114	Feasibility of an ECRH system for JET: wave propagation, absorption and current drive. , 2011, , .		0
115	MULTI-ANGLE MEASUREMENT OF EC EMISSION BY FAST ELECTRONS: SENSITIVITY STUDY. , 2011, , .		0