

# Pierre Dumortier

## List of Publications by Year in descending order

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143  
papers

2,474  
citations

172457

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docs citations

143  
times ranked

1382  
citing authors

#	ARTICLE	IF	CITATIONS
1	High Confinement and High Density with Stationary Plasma Energy and Strong Edge Radiation in the TEXTOR-94 Tokamak. <i>Physical Review Letters</i> , 1996, 77, 2487-2490.	7.8	114
2	Role of sawtooth in avoiding impurity accumulation and maintaining good confinement in JET radiative mantle discharges. <i>Nuclear Fusion</i> , 2003, 43, 1204-1213.	3.5	93
3	Reduction of divertor heat load in JET ELMy H-modes using impurity seeding techniques. <i>Nuclear Fusion</i> , 2004, 44, 312-319.	3.5	91
4	Technical challenges in the construction of the steady-state stellarator Wendelstein 7-X. <i>Nuclear Fusion</i> , 2013, 53, 126001.	3.5	77
5	Performance of the ITER ICRH system as expected from TOPICA and ANTITER II modelling. <i>Nuclear Fusion</i> , 2010, 50, 025026.	3.5	75
6	Overview of radiative improved mode results on TEXTOR-94. <i>Nuclear Fusion</i> , 1999, 39, 1637-1648.	3.5	69
7	Improved confinement with edge radiative cooling at high densities and high heating power in TEXTOR. <i>Nuclear Fusion</i> , 1994, 34, 825-836.	3.5	66
8	Tritium transport experiments on the JET tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2004, 46, B255-B265.	2.1	64
9	Integrated scenario in JET using real-time profile control. <i>Plasma Physics and Controlled Fusion</i> , 2003, 45, A367-A383.	2.1	55
10	High confinement and high density with stationary plasma energy and strong edge radiation cooling in the upgraded Torus Experiment for Technology Oriented Research (TEXTOR-94). <i>Physics of Plasmas</i> , 1997, 4, 1690-1698.	1.9	54
11	Experimental Evidence for the Intimate Interaction among Sheared Flows, Eddy Structures, Reynolds Stress, and Zonal Flows across a Transition to Improved Confinement. <i>Physical Review Letters</i> , 2013, 111, .	7.8	53
12	Recent progress toward high performance above the Greenwald density limit in impurity seeded discharges in limiter and divertor tokamaks. <i>Physics of Plasmas</i> , 2001, 8, 2188-2198.	1.9	52
13	Overview of experiments with radiation cooling at high confinement and high density in limited and diverted discharges. <i>Plasma Physics and Controlled Fusion</i> , 1999, 41, A379-A399.	2.1	51
14	Recent progress on JET towards the ITER reference mode of operation at high density. <i>Plasma Physics and Controlled Fusion</i> , 2001, 43, A11-A30.	2.1	51
15	Impurity-seeded plasma experiments on JET. <i>Nuclear Fusion</i> , 2003, 43, 49-62.	3.5	48
16	Confinement properties of high density impurity seeded ELMy H-mode discharges at low and high triangularity on JET. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, 1845-1861.	2.1	47
17	Radiation pattern and impurity transport in argon seeded ELMy H-mode discharges in JET. <i>Plasma Physics and Controlled Fusion</i> , 2002, 44, 1863-1878.	2.1	46
18	Towards the realization on JET of an integrated H-mode scenario for ITER. <i>Nuclear Fusion</i> , 2004, 44, 124-133.	3.5	45

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19	Preparing ITER ICRF: development and analysis of the load resilient matching systems based on antenna mock-up measurements. Nuclear Fusion, 2009, 49, 055004.	3.5	44
20	Physics and applications of three-ion ICRF scenarios for fusion research. Physics of Plasmas, 2021, 28, .	1.9	42
21	Impurity-seeded ELMy H-modes in JET, with high density and reduced heat load. Nuclear Fusion, 2005, 45, 1404-1410.	3.5	40
22	Recent developments in ICRF antenna modelling. Nuclear Fusion, 2006, 46, 432-443.	3.5	38
23	Electron cyclotron resonance heating on TEXTOR. Nuclear Fusion, 2003, 43, 1371-1383.	3.5	35
24	Study and design of the ion cyclotron resonance heating system for the stellarator Wendelstein 7-X. Physics of Plasmas, 2014, 21, .	1.9	35
25	Impact of ICRF on the scrape-off layer and on plasma wall interactions: From present experiments to fusion reactor. Nuclear Materials and Energy, 2019, 18, 131-140.	1.3	34
26	Generation and observation of fast deuterium ions and fusion-born alpha particles in JET $\text{D}^3\text{He}$ plasmas with the 3-ion radio-frequency heating scenario. Nuclear Fusion, 2020, 60, 124006.	3.5	34
27	Transport and improved confinement in high power edge radiation cooling experiments on TEXTOR. Nuclear Fusion, 1996, 36, 39-53.	3.5	33
28	Status of the ITER Ion Cyclotron H&CD system. Fusion Engineering and Design, 2013, 88, 517-520.	1.9	33
29	Overview of transport, fast particle and heating and current drive physics using tritium in JET plasmas. Nuclear Fusion, 2005, 45, S181-S194.	3.5	31
30	Direct evidence of eddy breaking and tilting by edge sheared flows observed in the TEXTOR tokamak. Nuclear Fusion, 2012, 52, 042004.	3.5	29
31	The influence of plasma-edge properties on high confinement discharges with a radiating plasma mantle at the tokamak TEXTOR-94. Plasma Physics and Controlled Fusion, 1997, 39, B189-B206.	2.1	27
32	Improved confinement in TEXTOR. Nuclear Fusion, 1993, 33, 283-300.	3.5	26
33	Comparison of the performance of ICRF antennas with and without Faraday shield on TEXTOR. Nuclear Fusion, 1992, 32, 1913-1925.	3.5	25
34	Development of the gas-puff imaging diagnostic in the TEXTOR tokamak. Review of Scientific Instruments, 2013, 84, 053501.	1.3	25
35	Results and modelling of high power edge radiation cooling in Textor. Physica Scripta, 1995, 52, 449-457.	2.5	23
36	Sawtooth pacing with on-axis ICRH modulation in JET-ILW. Nuclear Fusion, 2017, 57, 036027.	3.5	23

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37	Comparison of L-mode regimes with enhanced confinement by impurity seeding in JET and DIII-D. Plasma Physics and Controlled Fusion, 2002, 44, 1893-1902.	2.1	22
38	Commissioning of the ITER-like ICRF antenna for JET. Fusion Engineering and Design, 2009, 84, 279-283.	1.9	22
39	Quasistationary High Confinement Discharges with trans-Greenwald Density on TEXTOR-94. Physical Review Letters, 2000, 85, 2312-2315.	7.8	21
40	Confinement transitions with radiation cooling in TEXTOR-94. Plasma Physics and Controlled Fusion, 1996, 38, 279-288.	2.1	20
41	Realisation of a test facility for the ITER ICRH antenna plug-in by means of a mock-up with salted water load. Fusion Engineering and Design, 2005, 74, 367-375.	1.9	20
42	Seeding of impurities in JET H-mode discharges to mitigate the impact of ELMs. Plasma Physics and Controlled Fusion, 2002, 44, 1879-1891.	2.1	19
43	Study of the ITER ICRH system with external matching by means of a mock-up loaded by a variable water load. Nuclear Fusion, 2006, 46, S514-S539.	3.5	19
44	Modelling one-third field operation in the ITER pre-fusion power operation phase. Nuclear Fusion, 2019, 59, 126014.	3.5	19
45	Modelling of confinement degradation in the radiative improved mode caused by a strong gas puff. Plasma Physics and Controlled Fusion, 2001, 43, 945-957.	2.1	18
46	Electron Cyclotron Resonance Heating on TEXTOR. Fusion Science and Technology, 2005, 47, 108-118.	1.1	18
47	RF optimization of the ITER ICRF antenna plug including its broad banding by a service stub. Fusion Engineering and Design, 2009, 84, 707-711.	1.9	17
48	Status of the ITER IC H&CD System. AIP Conference Proceedings, 2009, , .	0.4	16
49	JET radiative mantle experiments in ELMy H-Mode. Plasma Physics and Controlled Fusion, 2000, 42, A81-A88.	2.1	15
50	Role of symmetry-breaking induced by $E \times B$ shear flows on developing residual stresses and intrinsic rotation in the TEXTOR tokamak. Nuclear Fusion, 2013, 53, 072001.	3.5	15
51	Improved ELM scaling with impurity seeding in JET. Plasma Physics and Controlled Fusion, 2003, 45, 1657-1669.	2.1	14
52	3D electromagnetic optimization of the front face of the ITER ICRF antenna. Nuclear Fusion, 2011, 51, 103002.	3.5	14
53	Simulation of ICRF antenna plasma loading by a dielectric dummy load. Application to the ITER case. Fusion Engineering and Design, 2011, 86, 855-859.	1.9	14
54	Summary and results of the study of the hybrid matching option implementation of the ITER ICRH system. Fusion Engineering and Design, 2012, 87, 167-178.	1.9	14

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55	Radio-frequency electrical design of the WEST long pulse and load-resilient ICRH launchers. Fusion Engineering and Design, 2015, 96-97, 473-476.	1.9	14
56	Review of recent advances in heating and current drive on TEXTOR. Plasma Physics and Controlled Fusion, 1993, 35, A15-A34.	2.1	13
57	Design, performance, and grounding aspects of the International Thermonuclear Experimental Reactor ion cyclotron range of frequencies antenna. Physics of Plasmas, 2014, 21, 061512.	1.9	13
58	High density, high performance high-confinement-mode plasmas in the Joint European Torus (JET). Physics of Plasmas, 2002, 9, 2103-2112.	1.9	12
59	Predictive modelling of the impact of argon injection on H-mode plasmas in JET with the RITM code. Plasma Physics and Controlled Fusion, 2004, 46, A241-A247.	2.1	12
60	Study of mutual coupling effects in the antenna array of the ICRH plug-in for ITER. Fusion Engineering and Design, 2005, 74, 359-365.	1.9	12
61	Recent ICRF developments at JET. Fusion Engineering and Design, 2007, 82, 873-880.	1.9	12
62	Mechanical design features and challenges for the ITER ICRH antenna. Fusion Engineering and Design, 2009, 84, 493-496.	1.9	12
63	Scattering-matrix arc detection on the JET ITER-like ICRH antenna. Fusion Engineering and Design, 2009, 84, 1953-1960.	1.9	12
64	Ion cyclotron resonance heating systems upgrade toward high power and CW operations in WEST. AIP Conference Proceedings, 2015, , .	0.4	12
65	Local effects of gas fuelling and their impact on transport processes in the plasma edge of the tokamak TEXTOR. Journal of Nuclear Materials, 2005, 337-339, 515-519.	2.7	11
66	Overview on Experiments On ITER-like Antenna On JET And ICRF Antenna Design For ITER. , 2009, , .		11
67	Eigenmode analysis of the ITER ICRF antenna plug and electrical solution to the grounding of the antenna. Nuclear Fusion, 2009, 49, 065025.	3.5	11
68	Progress in reducing ICRF-specific impurity release in ASDEX upgrade and JET. Nuclear Materials and Energy, 2017, 12, 1194-1198.	1.3	11
69	Recent results on ion cyclotron and combined heating of TEXTOR. Fusion Engineering and Design, 1995, 26, 103-120.	1.9	10
70	Development of a load-insensitive ICRH antenna system on TEXTOR. Fusion Engineering and Design, 2003, 66-68, 509-513.	1.9	10
71	Performance assessment of the ITER ICRF antenna. , 2014, , .		10
72	ITER ICRH antenna grounding options. Fusion Engineering and Design, 2013, 88, 922-925.	1.9	9

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73	ELM Resilient External Matching System for the ICRF System of ITER: 2. Design of the Components and Implementation. AIP Conference Proceedings, 2003, , .	0.4	8
74	Physics and technology in the ion-cyclotron range of frequency on Tore Supra and TITAN test facility: implication for ITER. Nuclear Fusion, 2013, 53, 083012.	3.5	8
75	Ion Cyclotron Resonance Heating on TEXTOR. Fusion Science and Technology, 2005, 47, 97-107.	1.1	8
76	SIDON: A simulator of radio-frequency networks. Application to WEST ICRF launchers. AIP Conference Proceedings, 2015, , .	0.4	7
77	Circuit model of the ITER-like antenna for JET and simulation of its control algorithms. AIP Conference Proceedings, 2015, , .	0.4	7
78	Commissioning and first results of the reinstated JET ICRF ILA. Fusion Engineering and Design, 2017, 123, 285-288.	1.9	7
79	ITER-like antenna for JET first results of the advanced matching control algorithms. Fusion Engineering and Design, 2017, 123, 253-258.	1.9	7
80	ICRH options for JET-ILW DTE2 operation. AIP Conference Proceedings, 2020, , .	0.4	7
81	ELM Resilient External Matching System for the ICRF System of ITER: 1. Principle and Performances. AIP Conference Proceedings, 2003, , .	0.4	6
82	ITER-like antenna capacitors voltage probes: Circuit/electromagnetic calculations and calibrations. Review of Scientific Instruments, 2016, 87, 104705.	1.3	6
83	Confinement and transport in EC heated RI-mode discharges in TEXTOR. Nuclear Fusion, 2004, 44, 533-541.	3.5	5
84	Tests of load resilient matching procedure for the ITER ICRH system on a mock-up and layout proposal. Fusion Engineering and Design, 2007, 82, 758-764.	1.9	5
85	ICRH Antenna Design and Matching. Fusion Science and Technology, 2012, 61, 320-327.	1.1	5
86	Influence of the blanket shield modules geometry on the operation of the ITER ICRF antenna. Fusion Engineering and Design, 2013, 88, 926-929.	1.9	5
87	Influence of the plasma profile and the antenna geometry on the matching and current distribution control of the ITER ICRF antenna array. Optimization of the decoupling-matching system. Fusion Engineering and Design, 2013, 88, 501-506.	1.9	5
88	Coupling and matching study of the ICRF antenna for W7-X. , 2014, , .		5
89	Contribution of LPP/ERM-KMS to the modern developments of ICRH antenna systems. Fusion Engineering and Design, 2016, 112, 21-35.	1.9	5
90	ICRH physics and technology achievements in JET-ILW. EPJ Web of Conferences, 2017, 157, 02004.	0.3	5

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91	ICRH antenna S-matrix measurements and plasma coupling characterisation at JET. Nuclear Fusion, 2018, 58, 046012.	3.5	5
92	RF sheath modeling of experimentally observed plasma surface interactions with the JET ITER-Like Antenna. Nuclear Materials and Energy, 2019, 19, 324-329.	1.3	5
93	Sawtooth control with modulated ICRH in JET-ILW H-mode plasmas. Nuclear Fusion, 2020, 60, 126037.	3.5	5
94	Investigation of "Conjugate Load-Resilient ICRF Antenna Systems" Application to the JET ITER-Like and to a Possible ITER ICRF System. AIP Conference Proceedings, 2005, , .	0.4	4
95	Operational Experience with the Scattering Matrix Arc Detection System on the JET ITER-Like Antenna. , 2009, , .		4
96	ICRH Antenna Design and Matching. Fusion Science and Technology, 2010, 57, 230-238.	1.1	4
97	Design of a mechanically actuated RF grounding system for the ITER ICRH antenna. Fusion Engineering and Design, 2013, 88, 2100-2104.	1.9	4
98	Technical optimization of the ITER ICRH decoupling and matching system. Fusion Engineering and Design, 2013, 88, 1030-1033.	1.9	4
99	Calibrations and verifications performed in view of the ILA reinstatement at JET. AIP Conference Proceedings, 2015, , .	0.4	4
100	Recent H majority inverted radio frequency heating scheme experiments in JET-ILW. EPJ Web of Conferences, 2017, 157, 03061.	0.3	4
101	ICRH in radiatively cooled TEXTOR-94 plasmas. , 1997, , .		3
102	Impact of hydrogen fuelling on confinement properties in radiative improved mode. Plasma Physics and Controlled Fusion, 2003, 45, 1501-1510.	2.1	3
103	Tests and matching analysis of a load resilient ICRH antenna on TEXTOR. Fusion Engineering and Design, 2005, 74, 377-383.	1.9	3
104	Experimental proof of a load resilient external matching solution for the ITER ICRH system. AIP Conference Proceedings, 2005, , .	0.4	3
105	RF Measurements and Modeling from the JET-ITER Like Antenna Testing. AIP Conference Proceedings, 2007, , .	0.4	3
106	Implementation on a mock-up of the automatic feedback controlled matching options of the full ITER ICRH system. Fusion Engineering and Design, 2011, 86, 978-981.	1.9	3
107	Optical signature of RF arcs in the ICRH frequency range. Fusion Engineering and Design, 2011, 86, 831-834.	1.9	3
108	Optimization of the Layout of the ITER ICRF Antenna Port Plug and its Performance Assessment. AIP Conference Proceedings, 2011, , .	0.4	3

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109	Analysis of ICRH antenna loading data in TEXTOR obtained during gas injection experiments. AIP Conference Proceedings, 2011, , .	0.4	3
110	RF optimisation of the port plug layout and performance assessment of the ITER ICRF antenna. Fusion Engineering and Design, 2013, 88, 940-944.	1.9	3
111	Review of combined ICRH-NBI results in TEXTOR. AIP Conference Proceedings, 1994, , .	0.4	2
112	Three-Dimensional Electromagnetic Modeling of the ITER ICRF Antenna (External Matching Design). AIP Conference Proceedings, 2005, , .	0.4	2
113	Status of the ITER ICRF system designâ€”â€”Externally Matchedâ€” approach. AIP Conference Proceedings, 2007, , .	0.4	2
114	RF Matching Feedback Control Systems on the JET ITER-Like Antenna. , 2009, , .		2
115	ITER ICRF Antenna Optimization and Broad-Banding Validation by use of a Reduced-Scale Mock-Up. , 2009, , .		2
116	Tests on a mock-up of the feedback controlled matching options of the ITER ICRH system. , 2009, , .		2
117	Proposal of an Arc Detection Technique Based on RF Measurements for the ITER ICRF Antenna. AIP Conference Proceedings, 2011, , .	0.4	2
118	Validation of the Electrical Properties of the ITER ICRF Antenna using Reduced-Scale Mock-Ups. , 2011, , .		2
119	The dedicated ICRH system for the stellarator Wendelstein 7-X. , 2014, , .		2
120	Validation of the electrical design of the W7-X ICRF antenna on a reduced-scale mock-up. Fusion Engineering and Design, 2015, 96-97, 463-467.	1.9	2
121	ICRH system performance during ITER-Like Wall operations at JET and the outlook for DT campaign. EPJ Web of Conferences, 2017, 157, 03035.	0.3	2
122	Reinstated JET ICRF ILA: Overview and Results. EPJ Web of Conferences, 2017, 157, 03010.	0.3	2
123	JET ILA full array and polychromatic operation. Fusion Engineering and Design, 2021, 169, 112489.	1.9	2
124	Study of the ITER ICRH system with external matching by means of a mock-up loaded by a variable water load. AIP Conference Proceedings, 2005, , .	0.4	1
125	Study of the Load Resilient External Matching Circuit for the ITER ICRHâ”•FWCD System by means of its Mock-up.. AIP Conference Proceedings, 2007, , .	0.4	1
126	Report On The Commissioning Of The JET-EP ITER-Like ICRH Antenna. AIP Conference Proceedings, 2007, , .	0.4	1



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127	ITER ICRF Antenna Reduced-Scale Mock-up EM Simulations and Comparisons with the Measurements. , 2009, , .		1
128	Analysis of the ITER ICRH Decoupling and Matching System. , 2009, , .		1
129	Parametric study of one triplet of the ITER ICRH antenna by numerical modeling. Fusion Engineering and Design, 2011, 86, 901-904.	1.9	1
130	High Dielectric Dummy Loads for ITER ICRH Antenna Laboratory Testing: Numerical Simulation of One Triplet Loading by Ferroelectric Ceramics. , 2011, , .		1
131	Detailed Modeling of Grounding Solutions for the ITER ICRF Antenna. AIP Conference Proceedings, 2011, , .	0.4	1
132	RF Sheath-Enhanced Plasma Surface Interaction Studies using Beryllium Optical Emission Spectroscopy in JET ITER-Like Wall. EPJ Web of Conferences, 2017, 157, 03024.	0.3	1
133	Electromagnetic simulations of JET ICRF ITER-like antenna with TOPICA and SSWICH asymptotic codes. EPJ Web of Conferences, 2017, 157, 03026.	0.3	1
134	Review of the JET ILA scattering-matrix arc detection system. Fusion Engineering and Design, 2020, 150, 110669.	1.9	1
135	Further studies on the ITER ICRF antenna grounding. AIP Conference Proceedings, 2020, , .	0.4	1
136	Design, tests and results of a second harmonic filter for the ICRH generator of JET. Fusion Engineering and Design, 2003, 66-68, 503-507.	1.9	0
137	Performance of the ITER ICRF Antenna plug as expected from TOPICA matrices. , 2009, , .		0
138	Eigenmode analysis of the ITER ICRF antenna plug and electrical solution to the grounding of the antenna. , 2009, , .		0
139	Results of the implementation on a mock-up of the full 3dB hybrid matching option of the ITER ICRH system. AIP Conference Proceedings, 2011, , .	0.4	0
140	Study of the effects of corrugated wall structures due to blanket modules around ICRH antennas. , 2014, , .		0
141	Confirmation of a new concept of ICRF antenna by modelling and experiments. Fusion Engineering and Design, 2015, 96-97, 532-537.	1.9	0
142	Sawtooth pacing with on-axis ICRH modulation in JET-ILW. EPJ Web of Conferences, 2017, 157, 03029.	0.3	0
143	3D modeling and optimization of the ITER ICRH antenna. , 2011, , .		0