

# Francesca Poli

## List of Publications by Year in descending order

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86  
papers

2,343  
citations

159585

30  
h-index

233421

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86  
all docs

86  
docs citations

86  
times ranked

1828  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Observation of the Blob-Generation Mechanism from Interchange Waves in a Plasma. <i>Physical Review Letters</i> , 2008, 100, 055004.	7.8	127
2	Electrostatic turbulence and transport in a simple magnetized plasma. <i>Physics of Plasmas</i> , 2006, 13, 055902.	1.9	103
3	Universal Statistical Properties of Drift-Interchange Turbulence in TORPEX Plasmas. <i>Physical Review Letters</i> , 2007, 98, 255002.	7.8	91
4	Dynamics of high energy runaway electrons in the Frascati Tokamak Upgrade. <i>Physics of Plasmas</i> , 2003, 10, 2350-2360.	1.9	90
5	Overview of the JET preparation for deuterium-tritium operation with the ITER like-wall. <i>Nuclear Fusion</i> , 2019, 59, 112021.	3.5	87
6	Quiet periods in edge turbulence preceding the L-H transition in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	83
7	ADX: a high field, high power density, advanced divertor and RF tokamak. <i>Nuclear Fusion</i> , 2015, 55, 053020.	3.5	82
8	Self-consistent core-pedestal transport simulations with neural network accelerated models. <i>Nuclear Fusion</i> , 2017, 57, 086034.	3.5	78
9	Overview of the JET results with the ITER-like wall. <i>Nuclear Fusion</i> , 2013, 53, 104002.	3.5	70
10	Mechanism for blob generation in the TORPEX toroidal plasma. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	65
11	Progress in disruption prevention for ITER. <i>Nuclear Fusion</i> , 2019, 59, 112012.	3.5	59
12	Compact NE213 neutron spectrometer with high energy resolution for fusion applications. <i>Review of Scientific Instruments</i> , 2004, 75, 3553-3555.	1.3	56
13	Plasma production by low-field side injection of electron cyclotron waves in a simple magnetized torus. <i>Plasma Physics and Controlled Fusion</i> , 2005, 47, 1989-2002.	2.1	51
14	TORBEAM 2.0, a paraxial beam tracing code for electron-cyclotron beams in fusion plasmas for extended physics applications. <i>Computer Physics Communications</i> , 2018, 225, 36-46.	7.5	51
15	Transition from drift to interchange instabilities in an open magnetic field line configuration. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	50
16	Effects of a Vertical Magnetic Field on Particle Confinement in a Magnetized Plasma Torus. <i>Physical Review Letters</i> , 2004, 93, 165003.	7.8	48
17	The ARIES Advanced and Conservative Tokamak Power Plant Study. <i>Fusion Science and Technology</i> , 2015, 67, 1-21.	1.1	47
18	Basic turbulence studies on TORPEX and challenges in the theory-experiment comparison. <i>Physics of Plasmas</i> , 2005, 12, 090906.	1.9	46

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19	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
20	Orchestrating TRANSP Simulations for Interpretative and Predictive Tokamak Modeling with OMFIT. Fusion Science and Technology, 2018, 74, 101-115.	1.1	44
21	Experimental characterization of drift-interchange instabilities in a simple toroidal plasma. Physics of Plasmas, 2006, 13, 102104.	1.9	43
22	Predicted colours for simple stellar populations. Astronomy and Astrophysics, 2000, 146, 91-101.	2.1	42
23	Electrostatic instabilities, turbulence and fast ion interactions in the TORPEX device. Plasma Physics and Controlled Fusion, 2010, 52, 124020.	2.1	41
24	Langmuir probe-based observables for plasma-turbulence code validation and application to the TORPEX basic plasma physics experiment. Physics of Plasmas, 2009, 16, 055703.	1.9	40
25	Overview of JET results. Nuclear Fusion, 2003, 43, 1540-1554.	3.5	38
26	Enhanced Production of Runaway Electrons during a Disruptive Termination of Discharges Heated with Lower Hybrid Power in the Frascati Tokamak Upgrade. Physical Review Letters, 2006, 97, 165002.	7.8	38
27	Cross-Field Transport by Instabilities and Blobs in a Magnetized Toroidal Plasma. Physical Review Letters, 2008, 101, 045001.	7.8	37
28	Probabilistic analysis of turbulent structures from two-dimensional plasma imaging. Physics of Plasmas, 2006, 13, 100701.	1.9	33
29	Statistical properties of electrostatic turbulence in toroidal magnetized plasmas. Plasma Physics and Controlled Fusion, 2007, 49, B281-B290.	2.1	33
30	The role of the density gradient on intermittent cross-field transport events in a simple magnetized toroidal plasma. Physics of Plasmas, 2008, 15, .	1.9	32
31	Experimental characterization and modelling of the particle source in an Electron-Cyclotron wave driven toroidal plasma. Plasma Physics and Controlled Fusion, 2006, 48, 1053-1062.	2.1	27
32	Integrated Tokamak modeling: When physics informs engineering and research planning. Physics of Plasmas, 2018, 25, .	1.9	26
33	Steady improved confinement in FTU high field plasmas sustained by deep pellet injection. Nuclear Fusion, 2001, 41, 1613-1618.	3.5	24
34	Plasma turbulence, suprathreshold ion dynamics and code validation on the basic plasma physics device TORPEX. Journal of Plasma Physics, 2015, 81, .	2.1	24
35	Electron cyclotron power management for control of neoclassical tearing modes in the ITER baseline scenario. Nuclear Fusion, 2018, 58, 016007.	3.5	23
36	Role of fast ion pressure in the isotope effect in JET L-mode plasmas. Nuclear Fusion, 2019, 59, 096030.	3.5	22

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37	Ideal MHD stability and performance of ITER steady-state scenarios with ITBs. Nuclear Fusion, 2012, 52, 063027.	3.5	21
38	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
39	Exploration of the Super H-mode regime on DIII-D and potential advantages for burning plasma devices. Physics of Plasmas, 2016, 23, .	1.9	20
40	Multi-machine analysis of termination scenarios with comparison to simulations of controlled shutdown of ITER discharges. Nuclear Fusion, 2018, 58, 026019.	3.5	20
41	NSTX/NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2019, 59, 112007.	3.5	20
42	External heating and current drive source requirements towards steady-state operation in ITER. Nuclear Fusion, 2014, 54, 073007.	3.5	17
43	Fast ion source and detector for investigating the interaction of turbulence with suprathermal ions in a low temperature toroidal plasma. Review of Scientific Instruments, 2006, 77, 10F503.	1.3	16
44	Study of the spectral properties of ELM precursors by means of wavelets. Plasma Physics and Controlled Fusion, 2008, 50, 095009.	2.1	16
45	Survey of heating and current drive for K-DEMO. Nuclear Fusion, 2018, 58, 036014.	3.5	16
46	Predicting the rotation profile in ITER. Nuclear Fusion, 2020, 60, 036003.	3.5	16
47	Development of electrostatic turbulence from drift-interchange instabilities in a toroidal plasma. Physics of Plasmas, 2007, 14, 052311.	1.9	14
48	Physics Basis for a Conservative Physics and Conservative Technology Tokamak Power Plant: ARIES-ACT2. Fusion Science and Technology, 2015, 67, 220-239.	1.1	14
49	Experimental and modeling uncertainties in the validation of lower hybrid current drive. Plasma Physics and Controlled Fusion, 2016, 58, 095001.	2.1	13
50	Fusion pilot plant performance and the role of a sustained high power density tokamak. Nuclear Fusion, 2022, 62, 036026.	3.5	13
51	Reduced energetic particle transport models enable comprehensive time-dependent tokamak simulations. Nuclear Fusion, 2019, 59, 106013.	3.5	12
52	Multiphysics approach to plasma neutron source modelling at the JET tokamak. Nuclear Fusion, 2019, 59, 096020.	3.5	12
53	Simulations towards the achievement of non-inductive current ramp-up and sustainment in the National Spherical Torus Experiment Upgrade. Nuclear Fusion, 2015, 55, 123011.	3.5	11
54	Rotation and neoclassical ripple transport in ITER. Nuclear Fusion, 2017, 57, 116044.	3.5	11

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55	Orbit modeling of fast particle redistribution induced by sawtooth instability. Nuclear Fusion, 2018, 58, 082029.	3.5	11
56	Alcator C-Mod experiments in support of the ITER baseline 15 MA scenario. Nuclear Fusion, 2013, 53, 093021.	3.5	10
57	Fast ion transport by sawtooth instability in the presence of ICRF-NBI synergy in JET plasmas. Nuclear Fusion, 2021, 61, 116056.	3.5	10
58	Spectra of magnetic perturbations triggered by pellets in JET plasmas. Nuclear Fusion, 2010, 50, 025004.	3.5	9
59	Feedback control design for non-inductively sustained scenarios in NSTX-U using TRANSP. Nuclear Fusion, 2017, 57, 066017.	3.5	9
60	TRANSP-based optimization towards tokamak scenario development. Fusion Engineering and Design, 2019, 146, 547-550.	1.9	9
61	On benchmarking of simulations of particle transport in ITER. Nuclear Fusion, 2019, 59, 076026.	3.5	9
62	A synthetic diagnostic for validation of electron gyroradius scale turbulence simulations against coherent scattering measurements. Physics of Plasmas, 2010, 17, .	1.9	8
63	Physics Basis for an Advanced Physics and Advanced Technology Tokamak Power Plant Configuration: ARIES-ACT1. Fusion Science and Technology, 2015, 67, 75-106.	1.1	8
64	Development of ITER non-activation phase operation scenarios. Nuclear Fusion, 2017, 57, 086021.	3.5	8
65	Formation and sustainment of internal transport barriers in the International Thermonuclear Experimental Reactor with the baseline heating mix. Physics of Plasmas, 2013, 20, .	1.9	7
66	Investigation of fast particle redistribution induced by sawtooth instability in NSTX-U. Nuclear Fusion, 2019, 59, 086007.	3.5	7
67	Pedestal collapse by resonant magnetic perturbations. Nuclear Fusion, 2021, 61, 044001.	3.5	7
68	A model investigation of the impact of lower hybrid wave scattering angle on current drive profile in EAST and Alcator C-Mod. Nuclear Fusion, 2021, 61, 106034.	3.5	7
69	Development of a reduced model for energetic particle transport by sawteeth in tokamaks. Plasma Physics and Controlled Fusion, 2022, 64, 025002.	2.1	7
70	Overview of the FTU results. Nuclear Fusion, 2003, 43, 1632-1640.	3.5	6
71	Regarding the optimization of O1-mode ECRH and the feasibility of EBW startup on NSTX-U. Plasma Physics and Controlled Fusion, 2018, 60, 065007.	2.1	6
72	A megawatt-level 28 GHz heating system for the National Spherical Torus Experiment Upgrade. EPJ Web of Conferences, 2015, 87, 02013.	0.3	5

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73	Model predictive control of KSTAR equilibrium parameters enabled by TRANSP. Nuclear Fusion, 2020, 60, 096007.	3.5	5
74	Impact of lithium wall conditioning and wave-frequency on high density lower hybrid current drive experiment on EAST. Nuclear Materials and Energy, 2021, 26, 100955.	1.3	4
75	Characterization of the electron distribution function in an electron-cyclotron driven toroidal plasma. Plasma Physics and Controlled Fusion, 2007, 49, 175-182.	2.1	3
76	A robust method for measurement of fluctuation parallel wavenumber in laboratory plasmas. Review of Scientific Instruments, 2009, 80, 053501.	1.3	3
77	Initial TRANSP simulations of lower hybrid heating and current drive in EAST. AIP Conference Proceedings, 2020, , .	0.4	2
78	Observation of synergy between lower hybrid waves at two frequencies in EAST. Physics of Plasmas, 2021, 28, 072506.	1.9	2
79	Antenna excitation of drift wave in a toroidal plasma. Physics of Plasmas, 2007, 14, 102101.	1.9	1
80	Implications of parasitic absorption of Electron Cyclotron waves on ITER operation around half-field. Nuclear Fusion, 0, , .	3.5	1
81	Heating and current drive requirements towards steady state operation in ITER. , 2014, , .		0
82	Physics design of a 28 GHz electron heating system for the National Spherical Torus experiment upgrade. , 2014, , .		0
83	Development of fully non-inductive plasmas heated by medium and high-harmonic fast waves in the national spherical torus experiment upgrade. AIP Conference Proceedings, 2015, , .	0.4	0
84	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
85	Time-Dependent Simulations of Fast-Wave Heated High-Non-Inductive-Fraction H-Mode Plasmas in the National Spherical Torus Experiment Upgrade. EPJ Web of Conferences, 2017, 157, 03052.	0.3	0
86	LHCD during current ramp experiments on Alcator C-Mod. EPJ Web of Conferences, 2017, 157, 03063.	0.3	0