

Francesco A G Volpe

List of Publications by Year in descending order

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papers

1,193
citations

361413

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32
g-index

77
all docs

77
docs citations

77
times ranked

1118
citing authors

#	ARTICLE	IF	CITATIONS
1	Minimization of magnetic forces on stellarator coils. Nuclear Fusion, 2022, 62, 086041.	3.5	3
2	Large vacuum flux surfaces generated by tilted planar coils. Plasma Physics and Controlled Fusion, 2019, 61, 075005.	2.1	0
3	Simultaneous iterative learning control of mode entrainment and error field. Nuclear Fusion, 2019, 59, 056011.	3.5	1
4	Stellarator Research Opportunities: A Report of the National Stellarator Coordinating Committee. Journal of Fusion Energy, 2018, 37, 51-94.	1.2	15
5	Feedforward and feedback control of locked mode phase and rotation in DIII-D with application to modulated ECCD experiments. Nuclear Fusion, 2018, 58, 036022.	3.5	9
6	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
7	Relationship between locked modes and thermal quenches in DIII-D. Nuclear Fusion, 2018, 58, 056022.	3.5	37
8	Application of Townsend avalanche theory to tokamak startup by coaxial helicity injection. Nuclear Fusion, 2018, 58, 016013.	3.5	17
9	Initial Exploration of High-Field Pulsed Stellarator Approach to Ignition Experiments. Journal of Fusion Energy, 2018, 37, 275-290.	1.2	9
10	Overdense microwave plasma heating in the CNT stellarator. Plasma Physics and Controlled Fusion, 2018, 60, 025022.	2.1	7
11	Prospects for a dominantly microwave-diagnosed magnetically confined fusion reactor. Journal of Instrumentation, 2017, 12, C01094-C01094.	1.2	3
12	Huygens's Fresnel wavefront tracing. Computer Physics Communications, 2017, 212, 123-131.	7.5	6
13	Statistical analysis of $m/n=2/1$ locked and quasi-stationary modes with rotating precursors at DIII-D. Nuclear Fusion, 2017, 57, 016019.	3.5	40
14	Avoidance of tearing mode locking with electro-magnetic torque introduced by feedback-based mode rotation control in DIII-D and RFX-mod. Nuclear Fusion, 2017, 57, 016035.	3.5	21
15	High- $\hat{\Gamma}^2$ equilibrium and ballooning stability of the low aspect ratio CNT stellarator. Physics of Plasmas, 2017, 24, 042510.	1.9	2
16	Space- and time-resolved resistive measurements of liquid metal wall thickness. Review of Scientific Instruments, 2016, 87, 11D427.	1.3	2
17	Resistive sensor and electromagnetic actuator for feedback stabilization of liquid metal walls in fusion reactors. Plasma Physics and Controlled Fusion, 2016, 58, 124005.	2.1	3
18	Onion-peeling inversion of stellarator images. Review of Scientific Instruments, 2016, 87, 11E119.	1.3	3

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19	Full-wave feasibility study of anti-radar diagnostic of magnetic field based on O-X mode conversion and oblique reflectometry imaging. Review of Scientific Instruments, 2016, 87, 11E120.	1.3	3
20	Local measurement of error field using naturally rotating tearing mode dynamics in EXTRAP T2R. Plasma Physics and Controlled Fusion, 2016, 58, 124001.	2.1	2
21	Development of Electron Bernstein Emission Diagnostic for Heliotron J. Plasma and Fusion Research, 2016, 11, 2402095-2402095.	0.7	1
22	Experimental and numerical study of error fields in the CNT stellarator. Plasma Physics and Controlled Fusion, 2016, 58, 074002.	2.1	13
23	Electromechanical modelling and design for phase control of locked modes in the DIII-D tokamak. Plasma Physics and Controlled Fusion, 2016, 58, 045008.	2.1	5
24	Avoiding Tokamak Disruptions by Applying Static Magnetic Fields That Align Locked Modes with Stabilizing Wave-Driven Currents. Physical Review Letters, 2015, 115, 175002.	7.8	37
25	Modeling of ion extraction from a toroidal Electron Cyclotron Resonance Ion Source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 790, 57-63.	1.6	2
26	Measurements of the toroidal torque balance of error field penetration locked modes. Plasma Physics and Controlled Fusion, 2015, 57, 025016.	2.1	15
27	Real-time beam tracing for control of the deposition location of electron cyclotron waves. Fusion Engineering and Design, 2015, 100, 73-80.	1.9	23
28	Array magnetics modal analysis for the DIII-D tokamak based on localized time-series modelling. Plasma Physics and Controlled Fusion, 2014, 56, 095012.	2.1	7
29	Error field detection in DIII-D by magnetic steering of locked modes. Nuclear Fusion, 2014, 54, 033006.	3.5	27
30	Proto-CIRCUS tilted-coil tokamakâ€“torsatron hybrid: Design and construction. Fusion Engineering and Design, 2014, 89, 2732-2737.	1.9	5
31	Measurement of tokamak error fields using plasma response and its applicability to ITER. Nuclear Fusion, 2014, 54, 073004.	3.5	16
32	Full-wave feasibility study of magnetic diagnostic based on O-X mode conversion and oblique reflectometry imaging. , 2014, , .		0
33	Stabilization of energetic-ion-driven MHD modes by ECCD in Heliotron J. Nuclear Fusion, 2013, 53, 113041.	3.5	18
34	Error field assessment from driven rotation of stable external kinks at EXTRAP-T2R reversed field pinch. Nuclear Fusion, 2013, 53, 043018.	3.5	16
35	Metamaterial Lens of Specifiable Frequency-Dependent Focus and Adjustable Aperture for Electron Cyclotron Emission in the DIII-D Tokamak. Journal of Infrared, Millimeter, and Terahertz Waves, 2013, 34, 437-455.	2.2	1
36	A method for the estimate of the wall diffusion for non-axisymmetric fields using rotating external fields. Plasma Physics and Controlled Fusion, 2013, 55, 084001.	2.1	3

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37	Hybrid-like 2/1 flux-pumping and magnetic island evolution due to edge localized mode-neoclassical tearing mode coupling in DIII-D. Physics of Plasmas, 2012, 19, 022503.	1.9	9
38	Reverse chromatic aberration and its numerical optimization in a metamaterial lens. Optics Express, 2012, 20, 8761.	3.4	5
39	Multi-pole multi-zero frequency-independent phase-shifter. Review of Scientific Instruments, 2012, 83, 114703.	1.3	1
40	Magnetic barriers and their dependence at DIII-D. Nuclear Fusion, 2012, 52, 054017.	3.5	5
41	Oblique electron-cyclotron-emission radial and phase detector of rotating magnetic islands applied to alignment and modulation of electron-cyclotron-current-drive for neoclassical tearing mode stabilization. Review of Scientific Instruments, 2012, 83, 103507.	1.3	5
42	Full-wave modeling of the O-X mode conversion in the Pegasus toroidal experiment. Physics of Plasmas, 2011, 18, 082501.	1.9	7
43	Full-wave modeling of the O-X mode conversion in the Pegasus Toroidal Experiment. , 2011, , .		1
44	Full-Wave Simulations of the O-X-B Mode Conversion in a Realistic Experimental Geometry in the RFX-mod Device. IEEE Transactions on Plasma Science, 2011, 39, 3016-3017.	1.3	0
45	Impurity transport experiments and effects on MHD in the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2011, 51, 083047.	3.5	25
46	Analytical solution of the O-X mode conversion problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1737-1741.	2.1	5
47	A spinning mirror for fast angular scans of EBW emission for magnetic pitch profile measurements. Review of Scientific Instruments, 2010, 81, 10D905.	1.3	6
48	Advanced techniques for neoclassical tearing mode control in DIII-D. Physics of Plasmas, 2009, 16, .	1.9	84
49	Overview of ASDEX Upgrade results. Nuclear Fusion, 2009, 49, 104009.	3.5	11
50	Disruption control on FTU and ASDEX upgrade with ECRH. Nuclear Fusion, 2009, 49, 065014.	3.5	35
51	Feasibility of electron Bernstein wave coupling via O-X-B mode conversion in the RFX-mod reversed field pinch device. Nuclear Fusion, 2009, 49, 075020.	3.5	14
52	Electron Cyclotron Heating in RFP plasmas. , 2009, , .		1
53	ECRH: A Tool To Control Disruptions In Tokamaks. , 2009, , .		2
54	Equilibrium reconstruction of plasma profiles based on soft x-ray imaging in DIII-D. Nuclear Fusion, 2009, 49, 025003.	3.5	12

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55	Progress and First Results With the New Multifrequency ECRH System for ASDEX Upgrade. IEEE Transactions on Plasma Science, 2009, 37, 395-402.	1.3	16
56	Real time magnetic field and flux measurements for tokamak control using a multi-core PCI Express system. Fusion Engineering and Design, 2009, 84, 825-828.	1.9	12
57	Overview of physics results from MAST. Nuclear Fusion, 2009, 49, 104017.	3.5	36
58	A SPINNING MIRROR FOR FAST ANGULAR SCANS OF EBW EMISSION. , 2009, , .		1
59	Benchmarking of codes for electron cyclotron heating and electron cyclotron current drive under ITER conditions. Nuclear Fusion, 2008, 48, 035006.	3.5	106
60	Electron Bernstein wave heating of over-dense H-mode plasmas in the TCV tokamak via O-X-B double mode conversion. Nuclear Fusion, 2007, 47, 1552-1558.	3.5	13
61	Evolution of the millimeter-wave collective Thomson scattering system of the high-field tokamak Frascati Tokamak Upgrade. Review of Scientific Instruments, 2007, 78, 043506.	1.3	13
62	Demonstration of Electron-Bernstein-Wave Heating in a Tokamak via O-X-B Double-Mode Conversion. Physical Review Letters, 2007, 98, .	7.8	21
63	Weakly relativistic dielectric tensor for arbitrary wavenumbers. Physics of Plasmas, 2007, 14, 122105.	1.9	6
64	Overview of physics results from MAST. Nuclear Fusion, 2007, 47, S658-S667.	3.5	25
65	Critical issues highlighted by collective Thomson scattering below electron cyclotron resonance in FTU. Nuclear Fusion, 2006, 46, 928-940.	3.5	25
66	Sensitivity of ITER ECRH Upper Launcher to Steering Errors and Changes of Profiles and Integration with Equatorial Launcher. Journal of Physics: Conference Series, 2005, 25, 283-295.	0.4	8
67	Overview of MAST results. Nuclear Fusion, 2005, 45, S157-S167.	3.5	19
68	W7-AS: One step of the Wendelstein stellarator line. Physics of Plasmas, 2005, 12, 072509.	1.9	41
69	Integrated modelling of the current profile in steady-state and hybrid ITER scenarios. Nuclear Fusion, 2005, 45, 1309-1320.	3.5	45
70	MAST and the impact of low aspect ratio on tokamak physics. Plasma Physics and Controlled Fusion, 2004, 46, B477-B494.	2.1	23
71	BXO mode-converted electron Bernstein emission diagnostic (invited). Review of Scientific Instruments, 2003, 74, 1409-1413.	1.3	38
72	Electron-Bernstein-Wave Current Drive in an Overdense Plasma at the Wendelstein 7-AS Stellarator. Physical Review Letters, 2003, 90, 075003.	7.8	52

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73	Electron Bernstein wave heating and current drive in overdense plasmas at the W7-AS stellarator. Nuclear Fusion, 2003, 43, 1324-1328.	3.5	23
74	Spectra of highly ionized xenon ($6\text{--}30\text{\AA}$) excited in W7-AS plasmas. Applied Physics B: Lasers and Optics, 2001, 73, 59-64.	2.2	5
75	Characterization and preliminary results of the collective Thomson scattering system on FTU tokamak. Review of Scientific Instruments, 1999, 70, 1158-1161.	1.3	14