

# Fulvio Militello

## List of Publications by Year in descending order

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Version: 2024-02-01

96  
papers

1,712  
citations

279701

23  
h-index

345118

36  
g-index

97  
all docs

97  
docs citations

97  
times ranked

1431  
citing authors

#	ARTICLE	IF	CITATIONS
1	Validation of edge turbulence codes in a magnetic X-point scenario in TORPEX. <i>Physics of Plasmas</i> , 2022, 29, .	0.7	11
2	Predictions of radiation pattern and inâ€“out asymmetries in the DEMO scrape-off layer using fluid neutrals. <i>Nuclear Fusion</i> , 2022, 62, 056015.	1.6	4
3	EUROfusion-theory and advanced simulation coordination (E-TASC): programme and the role of high performance computing. <i>Plasma Physics and Controlled Fusion</i> , 2022, 64, 034005.	0.9	2
4	Benefits and Challenges of Advanced Divertor Configurations in DEMO. <i>Fusion Engineering and Design</i> , 2022, 179, 113120.	1.0	4
5	Towards a fusion power plant: integration of physics and technology. <i>Plasma Physics and Controlled Fusion</i> , 2022, 64, 064002.	0.9	5
6	The physics of turbulence localised to the tokamak divertor volume. <i>Communications Physics</i> , 2022, 5, .	2.0	13
7	SOL-KiTâ€”Fully implicit code for kinetic simulation of parallel electron transport in the tokamak Scrape-Off Layer. <i>Computer Physics Communications</i> , 2021, 258, 107600.	3.0	8
8	Impact of plasma-wall interaction and exhaust on the EU-DEMO design. <i>Nuclear Materials and Energy</i> , 2021, 26, 100897.	0.6	18
9	Scoping the characteristics and benefits of a connected double-null configuration for power exhaust in EU-DEMO. <i>Nuclear Materials and Energy</i> , 2021, 26, 100886.	0.6	6
10	Preliminary analysis of alternative divertors for DEMO. <i>Nuclear Materials and Energy</i> , 2021, 26, 100908.	0.6	19
11	Edge turbulence in ISTTOK: a multi-code fluid validation. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 055013.	0.9	8
12	The role of edge plasma parameters in H-mode density limit on the JET-ILW. <i>Nuclear Fusion</i> , 2021, 61, 066009.	1.6	7
13	The EU strategy for solving the DEMO exhaust problem. <i>Fusion Engineering and Design</i> , 2021, 166, 112307.	1.0	11
14	The operational space for divertor power exhaust in DEMO with a super-X divertor. <i>Nuclear Fusion</i> , 2021, 61, 076007.	1.6	7
15	Impact of fine divertor geometrical features on the modelling of JET corner configurations. <i>Nuclear Materials and Energy</i> , 2021, 27, 100989.	0.6	1
16	Reduced-model scrape-off layer turbulence (nSOLT) simulations comparing three fueling scenarios. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	7
17	Ionâ€“electron energy transfer in kinetic and fluid modelling of the tokamak scrape-off layer. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	2
18	Comparison of private flux region instability in conventional and super-X divertor configurations. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	3

#	ARTICLE	IF	CITATIONS
19	Scrape-off layer transport and filament characteristics in high-density tokamak regimes. Nuclear Fusion, 2020, 60, 016001.	1.6	43
20	Impact of divertor configuration on recycling neutral fluxes for ITER-like wall in JET H-mode plasmas. Plasma Physics and Controlled Fusion, 2020, 62, 035006.	0.9	8
21	Onset of interchange instability in a coupled coreâ€“SOL plasma. Physics of Plasmas, 2020, 27, 072508.	0.7	0
22	Assessment of alternative divertor configurations as an exhaust solution for DEMO. Nuclear Fusion, 2020, 60, 066030.	1.6	41
23	A Bayesian model of filamentary dynamics in MAST. Plasma Physics and Controlled Fusion, 2020, 62, 125002.	0.9	3
24	Dynamics of scrape-off layer filaments in detached conditions. Nuclear Fusion, 2020, 60, 126047.	1.6	3
25	Blob interactions in 2D scrape-off layer simulations. Physics of Plasmas, 2020, 27, .	0.7	6
26	Kinetic and fluid simulations of parallel electron transport during equilibria and transients in the scrape-off layer. Plasma Physics and Controlled Fusion, 2020, 62, 095004.	0.9	7
27	Kinetic effects in parallel electron energy transport channels in the scrape-off layer. Plasma Physics and Controlled Fusion, 2020, 62, 125009.	0.9	5
28	Three-dimensional plasma edge turbulence simulations of the Mega Ampere Spherical Tokamak and comparison with experimental measurements. Plasma Physics and Controlled Fusion, 2019, 61, 095013.	0.9	19
29	Dynamics of scrape-off layer filaments in high $\hat{I}^2$ plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 105013.	0.9	11
30	Filament identification in wide-angle high speed imaging of the mega amp spherical tokamak. Review of Scientific Instruments, 2019, 90, 093502.	0.6	5
31	Physics research on the TCV tokamak facility: from conventional to alternative scenarios and beyond. Nuclear Fusion, 2019, 59, 112023.	1.6	43
32	Towards an automatic filament detector with a Faster R-CNN on MAST-U. Fusion Engineering and Design, 2019, 146, 374-377.	1.0	12
33	3D simulations of turbulent mixing in a simplified slab-divertor geometry. Nuclear Materials and Energy, 2019, 18, 111-117.	0.6	5
34	Overview of new MAST physics in anticipation of first results from MAST Upgrade. Nuclear Fusion, 2019, 59, 112011.	1.6	30
35	Stability of scrape-off layer plasma: A modified Rayleighâ€“BÃ©nard problem. Physics of Plasmas, 2019, 26, .	0.7	6
36	Dependence on ion temperature of shallow-angle magnetic presheaths with adiabatic electrons. Journal of Plasma Physics, 2019, 85, .	0.7	4

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37	Influence of plasma background on 3D scrape-off layer filaments. Plasma Physics and Controlled Fusion, 2019, 61, 025008.	0.9	4
38	MAST Upgrade Divertor Facility: A Test Bed for Novel Divertor Solutions. IEEE Transactions on Plasma Science, 2018, 46, 1217-1226.	0.6	26
39	Investigation into the formation of the scrape-off layer density shoulder in JET ITER-like wall L-mode and H-mode plasmas. Nuclear Fusion, 2018, 58, 056001.	1.6	38
40	Solution to a collisionless shallow-angle magnetic presheath with kinetic ions. Plasma Physics and Controlled Fusion, 2018, 60, 125002.	0.9	11
41	Fluctuation characteristics of the TCV snowflake divertor measured with high speed visible imaging. Plasma Physics and Controlled Fusion, 2018, 60, 115008.	0.9	9
42	A two-dimensional statistical framework connecting thermodynamic profiles with filaments in the scrape off layer and application to experiments. Physics of Plasmas, 2018, 25, 056112.	0.7	11
43	Experimental constraint on the radial mode number of the geodesic acoustic mode from multi-point Langmuir probe measurements in MAST Ohmic plasma. Plasma Physics and Controlled Fusion, 2018, 60, 085016.	0.9	4
44	Identification of intermittent transport in the scrape-off layer of MAST through high speed imaging. Nuclear Materials and Energy, 2017, 12, 175-180.	0.6	10
45	Statistical analysis of the ion flux to the JET outer wall. Nuclear Fusion, 2017, 57, 036016.	1.6	9
46	Gyrokinetic treatment of a grazing angle magnetic presheath. Plasma Physics and Controlled Fusion, 2017, 59, 025015.	0.9	17
47	Main chamber wall plasma loads in JET-ITER-like wall at high radiated fraction. Nuclear Materials and Energy, 2017, 12, 234-240.	0.6	7
48	Influence of plasma background including neutrals on scrape-off layer filaments using 3D simulations. Nuclear Materials and Energy, 2017, 12, 825-830.	0.6	7
49	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	1.6	150
50	Modification of SOL profiles and fluctuations with line-average density and divertor flux expansion in TCV. Nuclear Fusion, 2017, 57, 116014.	1.6	35
51	On the interaction of scrape off layer filaments. Plasma Physics and Controlled Fusion, 2017, 59, 125013.	0.9	13
52	Overview of recent physics results from MAST. Nuclear Fusion, 2017, 57, 102007.	1.6	16
53	Interpretation of scrape-off layer profile evolution and first-wall ion flux statistics on JET using a stochastic framework based on filamentary motion. Plasma Physics and Controlled Fusion, 2017, 59, 085009.	0.9	17
54	Quiescence near the X-point of MAST measured by high speed visible imaging. Nuclear Fusion, 2017, 57, 126028.	1.6	18

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55	Dynamics of 3D isolated thermal filaments. Plasma Physics and Controlled Fusion, 2016, 58, 115010.	0.9	31
56	Characterisation of the L-mode scrape off layer in MAST: decay lengths. Nuclear Fusion, 2016, 56, 016006.	1.6	21
57	The effects of shape and amplitude on the velocity of scrape-off layer filaments. Plasma Physics and Controlled Fusion, 2016, 58, 014030.	0.9	18
58	Blob dynamics in the TORPEX experiment: a multi-code validation. Plasma Physics and Controlled Fusion, 2016, 58, 044005.	0.9	41
59	L-mode filament characteristics on MAST as a function of plasma current measured using visible imaging. Plasma Physics and Controlled Fusion, 2016, 58, 085008.	0.9	19
60	Investigation of the effect of resistivity on scrape off layer filaments using three-dimensional simulations. Physics of Plasmas, 2016, 23, .	0.7	32
61	Multi-code analysis of scrape-off layer filament dynamics in MAST. Plasma Physics and Controlled Fusion, 2016, 58, 105002.	0.9	22
62	On the relation between non-exponential scrape off layer profiles and the dynamics of filaments. Plasma Physics and Controlled Fusion, 2016, 58, 125004.	0.9	21
63	Scrape off layer profiles interpreted with filament dynamics. Nuclear Fusion, 2016, 56, 104004.	1.6	29
64	L to H mode transition: parametric dependencies of the temperature threshold. Nuclear Fusion, 2015, 55, 073015.	1.6	18
65	Intrinsic instabilities in X-point geometry: A tool to understand and predict the Scrape Off Layer transport in standard and advanced divertors. Journal of Nuclear Materials, 2015, 463, 1214-1219.	1.3	2
66	Overview of MAST results. Nuclear Fusion, 2015, 55, 104008.	1.6	16
67	Three dimensional simulations of plasma filaments in the scrape off layer: A comparison with models of reduced dimensionality. Physics of Plasmas, 2014, 21, .	0.7	63
68	The deceiving $\hat{\nu}^2$ : On the equilibrium dependent dynamics of nonlinear magnetic islands. Physics of Plasmas, 2014, 21, 102514.	0.7	7
69	Finite system size effects on drift wave stability. Physics of Plasmas, 2014, 21, 022115.	0.7	1
70	Overview of physics results from MAST towards ITER/DEMO and the MAST Upgrade. Nuclear Fusion, 2013, 53, 104008.	1.6	21
71	Numerical investigation of Scrape Off Layer anomalous particle transport for MAST parameters. Journal of Nuclear Materials, 2013, 438, S530-S535.	1.3	4
72	Experimental and numerical characterization of the turbulence in the scrape-off layer of MAST. Plasma Physics and Controlled Fusion, 2013, 55, 025005.	0.9	38

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73	Numerical scalings of the decay lengths in the scrape-off layer. Plasma Physics and Controlled Fusion, 2013, 55, 074010.	0.9	13
74	Analysis of lithium driven electron density peaking in FTU liquid lithium limiter experiments. Nuclear Fusion, 2013, 53, 033007.	1.6	7
75	Simulations of edge and scrape off layer turbulence in mega ampere spherical tokamak plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 095011.	0.9	36
76	A new model of the Lâ€“H transition in tokamaks*. Nuclear Fusion, 2012, 52, 062003.	1.6	34
77	Multi-parameter scaling of divertor power load profiles in D, H and He plasmas on JET and implications for ITER. Nuclear Fusion, 2011, 51, 083028.	1.6	31
78	Asymmetric tearing mode in the presence of viscosity. Physics of Plasmas, 2011, 18, 112108.	0.7	16
79	Generation of zonal perturbations and transport barriers in plasmas. Nuclear Fusion, 2011, 51, 033006.	1.6	5
80	Multi-machine comparison of drift fluid dimensionless parameters. Plasma Physics and Controlled Fusion, 2011, 53, 095002.	0.9	23
81	Effect of current corrugations on the stability of the tearing mode. Physics of Plasmas, 2009, 16, 032101.	0.7	10
82	Influence of higher-order harmonics on the saturation of the tearing mode. Plasma Physics and Controlled Fusion, 2009, 51, 035002.	0.9	4
83	Effect of electrostatic turbulence on magnetic islands. Plasma Physics and Controlled Fusion, 2009, 51, 015015.	0.9	42
84	Error field penetration in the presence of diamagnetic effects. Nuclear Fusion, 2009, 49, 065018.	1.6	22
85	Interaction between turbulence and a nonlinear tearing mode in the low $\hat{\nu}^2$ regime. Physics of Plasmas, 2008, 15, 050701.	0.7	43
86	Saturation of tearing modes in reversed field pinches with locally linear force-free magnetic fields and its application to quasi-single-helicity states. Physics of Plasmas, 2008, 15, 052104.	0.7	4
87	Neoclassical tearing mode saturation in periodic current sheets. Physics of Plasmas, 2008, 15, .	0.7	8
88	Turbulent impulsive magnetic energy release from electron scale reconnection. Physics of Plasmas, 2007, 14, 012902.	0.7	1
89	Perturbative analysis of the tearing mode saturation. Physics of Plasmas, 2006, 13, 112512.	0.7	25
90	The influence of the ion polarization current on magnetic island stability in a tokamak plasma. Physics of Plasmas, 2006, 13, 122507.	0.7	56

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91	Nonlinear Saturation of Tearing Mode Islands. Physical Review Letters, 2005, 95, 065001.	2.9	43
92	Progress in the theory of magnetic reconnection phenomena. Plasma Physics and Controlled Fusion, 2004, 46, B201-B212.	0.9	8
93	Effects of local features of the equilibrium current density profile on linear tearing modes. Physics of Plasmas, 2004, 11, 125-128.	0.7	27
94	Simple analysis of the nonlinear saturation of the tearing mode. Physics of Plasmas, 2004, 11, L13-L16.	0.7	59
95	Investigation of the role of hydrogen molecules in 1D simulation of divertor detachment. Plasma Physics and Controlled Fusion, 0, , .	0.9	2
96	Comparing two- and three-dimensional models of scrape-off-layer turbulent transport. Plasma Physics and Controlled Fusion, 0, , .	0.9	0