

# Fabio Moro

## List of Publications by Year in descending order

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137  
papers

2,371  
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218677

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g-index

137  
all docs

137  
docs citations

137  
times ranked

2011  
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	3.5	150
2	Recent progress in developing a feasible and integrated conceptual design of the WCLL BB in EUROfusion project. Fusion Engineering and Design, 2019, 146, 1805-1809.	1.9	126
3	WCLL breeding blanket design and integration for DEMO 2015: status and perspectives. Fusion Engineering and Design, 2017, 124, 682-686.	1.9	91
4	Overview of the JET preparation for deuterium-tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
5	Overview over DEMO design integration challenges and their impact on component design concepts. Fusion Engineering and Design, 2018, 136, 87-95.	1.9	77
6	Advancements in DEMO WCLL breeding blanket design and integration. International Journal of Energy Research, 2018, 42, 27-52.	4.5	77
7	Efficient generation of energetic ions in multi-ion plasmas by radio-frequency heating. Nature Physics, 2017, 13, 973-978.	16.7	73
8	A determination of the Boltzmann constant from speed of sound measurements in helium at a single thermodynamic state. Metrologia, 2010, 47, 387-409.	1.2	64
9	The DEMO Water-Cooled Lead-Lithium Breeding Blanket: Design Status at the End of the Pre-Conceptual Design Phase. Applied Sciences (Switzerland), 2021, 11, 11592.	2.5	54
10	Recent Progress in the WCLL Breeding Blanket Design for the DEMO Fusion Reactor. IEEE Transactions on Plasma Science, 2018, 46, 1446-1457.	1.3	49
11	Diagnostics and control for the steady state and pulsed tokamak DEMO. Nuclear Fusion, 2016, 56, 026009.	3.5	45
12	Neutronic performance issues of the breeding blanket options for the European DEMO fusion power plant. Fusion Engineering and Design, 2016, 109-111, 1458-1463.	1.9	41
13	Real-time-capable prediction of temperature and density profiles in a tokamak using RAPTOR and a first-principle-based transport model. Nuclear Fusion, 2018, 58, 096006.	3.5	41
14	Nuclear analysis of the ITER full-tungsten divertor. Fusion Engineering and Design, 2013, 88, 2006-2010.	1.9	40
15	Integrated modelling of H-mode pedestal and confinement in JET-ILW. Plasma Physics and Controlled Fusion, 2018, 60, 014042.	2.1	40
16	Measurements of light transmission in deep sea with the AC9 transmissometer. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 487, 423-434.	1.6	38
17	Shutdown dose rate assessment with the Advanced D1S method: Development, applications and validation. Fusion Engineering and Design, 2014, 89, 2083-2087.	1.9	37
18	Neutron spectroscopy measurements of 14 MeV neutrons at unprecedented energy resolution and implications for deuterium-tritium fusion plasma diagnostics. Measurement Science and Technology, 2018, 29, 045502.	2.6	35

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19	Scenario development for the observation of alpha-driven instabilities in JET DT plasmas. Nuclear Fusion, 2018, 58, 082005.	3.5	34
20	Neutron measurements in ITER using the Radial Neutron Camera. Journal of Instrumentation, 2012, 7, C03033-C03033.	1.2	33
21	Required, achievable and target TBR for the European DEMO. Fusion Engineering and Design, 2020, 155, 111553.	1.9	33
22	Shutdown dose rate benchmark experiment at JET to validate the three-dimensional Advanced-D1S method. Fusion Engineering and Design, 2012, 87, 1095-1100.	1.9	32
23	Development of equatorial visible/infrared wide angle viewing system and radial neutron camera for ITER. Fusion Engineering and Design, 2009, 84, 1689-1696.	1.9	30
24	Methodological approach for DEMO neutronics in the European PPPT programme: Tools, data and analyses. Fusion Engineering and Design, 2017, 123, 26-31.	1.9	30
25	Neutronic analyses in support of the WCLL DEMO design development. Fusion Engineering and Design, 2018, 136, 1260-1264.	1.9	30
26	Modelling of JET hybrid plasmas with emphasis on performance of combined ICRF and NBI heating. Nuclear Fusion, 2018, 58, 106037.	3.5	29
27	Design and Capabilities of the Temperature Control System for the Italian Experiment Based on Precision Laser Spectroscopy for a New Determination of the Boltzmann Constant. International Journal of Thermophysics, 2010, 31, 1360-1370.	2.1	26
28	W transport and accumulation control in the termination phase of JET H-mode discharges and implications for ITER. Plasma Physics and Controlled Fusion, 2018, 60, 074008.	2.1	26
29	Neutronic analyses and tools development efforts in the European DEMO programme. Fusion Engineering and Design, 2014, 89, 1880-1884.	1.9	24
30	High fusion performance at high $T_i$ / $T_e$ in JET-ILW baseline plasmas with high NBI heating power and low gas puffing. Nuclear Fusion, 2018, 58, 036020.	3.5	23
31	Measuring fast ions in fusion plasmas with neutron diagnostics at JET. Plasma Physics and Controlled Fusion, 2019, 61, 014027.	2.1	23
32	Progress in INRiM Experiment for the Determination of the Boltzmann Constant with a Quasi-spherical Resonator. International Journal of Thermophysics, 2011, 32, 1339-1354.	2.1	22
33	Copper benchmark experiment at the Frascati Neutron Generator for nuclear data validation. Fusion Engineering and Design, 2016, 109-111, 843-847.	1.9	22
34	14 MeV calibration of JET neutron detectors – phase 1: calibration and characterization of the neutron source. Nuclear Fusion, 2018, 58, 026012.	3.5	22
35	Combined unfolding and spatial inversion of neutron camera measurements for ion temperature profile determination in ITER. Nuclear Fusion, 2011, 51, 053011.	3.5	21
36	Electron acceleration in a JET disruption simulation. Nuclear Fusion, 2018, 58, 106022.	3.5	21

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37	The ITER radial neutron camera: An updated neutronic analysis. Fusion Engineering and Design, 2009, 84, 1351-1356.	1.9	20
38	Shutdown dose rates at ITER equatorial ports considering radiation cross-talk from torus cryopump lower port. Fusion Engineering and Design, 2015, 100, 501-506.	1.9	20
39	ITER oriented neutronics benchmark experiments on neutron streaming and shutdown dose rate at JET. Fusion Engineering and Design, 2017, 123, 171-176.	1.9	20
40	Equilibrium reconstruction at JET using Stokes model for polarimetry. Nuclear Fusion, 2018, 58, 106032.	3.5	20
41	Observation of enhanced ion particle transport in mixed H/D isotope plasmas on JET. Nuclear Fusion, 2018, 58, 076022.	3.5	20
42	Nuclear design of Divertor Tokamak Test (DTT) facility. Fusion Engineering and Design, 2020, 155, 111551.	1.9	20
43	Nuclear performances of the water-cooled lithium lead DEMO reactor: Neutronic analysis on a fully heterogeneous model. Fusion Engineering and Design, 2021, 168, 112514.	1.9	20
44	Neutronic analysis of the JT-60SA toroidal magnets. Fusion Engineering and Design, 2009, 84, 1947-1952.	1.9	19
45	Neutronics experiments and analyses in preparation of DT operations at JET. Fusion Engineering and Design, 2016, 109-111, 895-905.	1.9	19
46	Analysis of deposited layers with deuterium and impurity elements on samples from the divertor of JET with ITER-like wall. Journal of Nuclear Materials, 2019, 516, 202-213.	2.7	18
47	Analysis of ELM stability with extended MHD models in JET, JT-60U and future JT-60SA tokamak plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 014032.	2.1	17
48	Effects of nitrogen seeding on core ion thermal transport in JET ILW L-mode plasmas. Nuclear Fusion, 2018, 58, 026028.	3.5	17
49	Nuclear analysis of the Water cooled lithium lead DEMO reactor. Fusion Engineering and Design, 2020, 160, 111833.	1.9	17
50	Axisymmetric global Alfvén eigenmodes within the ellipticity-induced frequency gap in the Joint European Torus. Physics of Plasmas, 2017, 24, .	1.9	16
51	Review of recent experimental and modeling advances in the understanding of lower hybrid current drive in ITER-relevant regimes. Nuclear Fusion, 2018, 58, 095003.	3.5	16
52	Nuclear analyses for the design of the ITER-like plasma facing components vertical targets of the DEMO divertor. Fusion Engineering and Design, 2020, 155, 111730.	1.9	16
53	Observations and modelling of ion cyclotron emission observed in JET plasmas using a sub-harmonic arc detection system during ion cyclotron resonance heating. Nuclear Fusion, 2018, 58, 096020.	3.5	14
54	Light impurity transport in JET ILW L-mode plasmas. Nuclear Fusion, 2018, 58, 036009.	3.5	13

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55	SORGENTINA-RF project: fusion neutrons for $^{99}\text{Mo}$ medical radioisotope. European Physical Journal Plus, 2021, 136, 1.	2.6	13
56	Comparison of runaway electron generation parameters in small, medium-sized and large tokamaks: A survey of experiments in COMPASS, TCV, ASDEX-Upgrade and JET. Nuclear Fusion, 2018, 58, 016014.	3.5	12
57	Integral approach for neutronics analyses of the European test blanket modules in ITER. Fusion Engineering and Design, 2011, 86, 2176-2179.	1.9	11
58	Capabilities for Dielectric-Constant Gas Thermometry in a Special Large-Volume Liquid-Bath Thermostat. International Journal of Thermophysics, 2011, 32, 1355-1365.	2.1	11
59	Neutronics analysis and nuclear heating measurement up to the TFC in a mock-up of the ITER inboard shield. Fusion Engineering and Design, 2012, 87, 910-915.	1.9	11
60	TAE stability calculations compared to TAE antenna results in JET. Nuclear Fusion, 2018, 58, 082007.	3.5	11
61	Traceability and Online Publication of Weather Station Measurements of Temperature, Pressure, and Humidity. International Journal of Thermophysics, 2012, 33, 1633-1641.	2.1	10
62	Thermo-structural design of the European DEMO water-cooled blanket with a multiscale-multiphysics framework. Fusion Engineering and Design, 2018, 135, 31-41.	1.9	10
63	Tritium distributions on W-coated divertor tiles used in the third JET ITER-like wall campaign. Nuclear Materials and Energy, 2019, 18, 258-261.	1.3	10
64	A novel approach to the study of magnetohydrodynamic effect on tritium transport in WCLL breeding blanket of DEMO. Fusion Engineering and Design, 2021, 167, 112334.	1.9	10
65	Construction and Start-up of a Large-Volume Thermostat for Dielectric-Constant Gas Thermometry. International Journal of Thermophysics, 2010, 31, 1386-1395.	2.1	9
66	The McCad Code for the Automatic Generation of MCNP 3-D Models: Applications in Fusion Neutronics. IEEE Transactions on Plasma Science, 2014, 42, 1036-1041.	1.3	9
67	Full-orbit and drift calculations of fusion product losses due to explosive fishbones on JET. Nuclear Fusion, 2019, 59, 016004.	3.5	9
68	Three-dimensional neutronic analysis of the ITER in-vessel coils. Fusion Engineering and Design, 2011, 86, 584-587.	1.9	8
69	Study of shielding options for lower ports for mitigation of neutron environment and shutdown dose inside the ITER cryostat. Fusion Engineering and Design, 2016, 109-111, 1408-1411.	1.9	8
70	Analysis of possible improvement of the plasma performance in JET due to the inward spatial channelling of fast-ion energy. Nuclear Fusion, 2018, 58, 076012.	3.5	8
71	High-Priority Prototype Testing in Support of System-Level Design Development of the ITER Radial Neutron Camera. IEEE Transactions on Plasma Science, 2018, 46, 1291-1297.	1.3	8
72	Neutronics study for DTT tokamak building. Fusion Engineering and Design, 2019, 146, 2581-2585.	1.9	8

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73	A locked mode indicator for disruption prediction on JET and ASDEX upgrade. Fusion Engineering and Design, 2019, 138, 254-266.	1.9	8
74	Neutronics analysis and activation calculation for tungsten used in the DEMO divertor targets: A comparative study between the effects of WCLL and HCPB blanket, different W compositions and chromium. Fusion Engineering and Design, 2021, 169, 112428.	1.9	8
75	Neutronic analysis of the ITER Equatorial Port Plug 1. Fusion Engineering and Design, 2012, 87, 1224-1229.	1.9	7
76	Characterization of the radiation field and evaluation of the nuclear responses in the ITER cryopump port cell. Fusion Engineering and Design, 2016, 109-111, 461-467.	1.9	7
77	MHD spectroscopy of JET plasmas with pellets via Alfvén eigenmodes. Nuclear Fusion, 2018, 58, 082008.	3.5	7
78	Improved neutron activation dosimetry for fusion. Fusion Engineering and Design, 2019, 139, 109-114.	1.9	7
79	Pre-analysis of the WCLL breeding blanket mock-up neutronics experiment at the Frascati neutron generator. Fusion Engineering and Design, 2020, 156, 111600.	1.9	7
80	Preliminary evaluations of the environmental impact for the production of <sup>99</sup> Mo by fusion neutrons. European Physical Journal Plus, 2021, 136, 1.	2.6	7
81	Neutronic Analysis of FAST. IEEE Transactions on Plasma Science, 2010, 38, 406-413.	1.3	6
82	Comparison of Two Potassium-Filled Gas-Controlled Heat Pipes. International Journal of Thermophysics, 2015, 36, 3393-3403.	2.1	6
83	Nuclear analysis of the ITER Cryopump Ports. Fusion Engineering and Design, 2015, 98-99, 1561-1565.	1.9	6
84	Copper benchmark experiment for the testing of JEFF-3.2 nuclear data for fusion applications. EPJ Web of Conferences, 2017, 146, 09004.	0.3	6
85	An improved model for the accurate calculation of parallel heat fluxes at the JET bulk tungsten outer divertor. Nuclear Fusion, 2018, 58, 106034.	3.5	6
86	Nuclear analysis of the Single Module Segment WCLL DEMO. Fusion Engineering and Design, 2019, 147, 111207.	1.9	6
87	The ITER radial neutron camera in-port system: Nuclear analyses in support of its design development. Fusion Engineering and Design, 2019, 146, 236-241.	1.9	6
88	Progress on the Integration of ITER Diagnostics Equatorial Port Plugs in Europe. IEEE Transactions on Plasma Science, 2012, 40, 665-672.	1.3	5
89	The IMERAPlus joint research project for determinations of the Boltzmann constant. , 2013, , .		5
90	Shielding proposal to reduce cross-talk from ITER lower port to equatorial port. Fusion Engineering and Design, 2015, 101, 67-72.	1.9	5

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91	Nuclear analysis of ITER Test Blanket Module Port Plug. Fusion Engineering and Design, 2015, 98-99, 1668-1673.	1.9	5
92	Nuclear responses in the ITER IVVS port cell. Fusion Engineering and Design, 2017, 124, 645-648.	1.9	5
93	Neural network implementation for ITER neutron emissivity profile recognition. Fusion Engineering and Design, 2017, 123, 637-640.	1.9	5
94	Parametric study of the influence of First Wall cooling water on the Water Cooled Lithium Lead Breeding Blanket nuclear response. Fusion Engineering and Design, 2019, 146, 2070-2073.	1.9	5
95	An active Bonner sphere spectrometer for intense neutron fields. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 940, 302-306.	1.6	5
96	Calibration and test of a $^6\text{LiF}$ -diamond detector for the HCPB mock-up experiment at JET. Fusion Engineering and Design, 2019, 146, 1755-1758.	1.9	5
97	Progress in development of advanced D1S dynamic code for three-dimensional shutdown dose rate calculations. Fusion Engineering and Design, 2020, 157, 111631.	1.9	5
98	Issues from activation/dose rates calculation for full W ITER machine and increased fluence. Fusion Engineering and Design, 2009, 84, 530-533.	1.9	4
99	Pre-analysis of the copper neutronics benchmark experiment for nuclear data validation. Fusion Engineering and Design, 2015, 98-99, 1964-1967.	1.9	4
100	Neutronics studies for the design of the European DEMO vacuum vessel. Fusion Engineering and Design, 2016, 109-111, 784-788.	1.9	4
101	Nuclear analysis of the ITER radial neutron camera architectural options. Fusion Engineering and Design, 2017, 123, 1033-1038.	1.9	4
102	Inter-ELM evolution of the edge current density in JET-ILW type I ELMy H-mode plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 085003.	2.1	4
103	Design and assembling of a magnetic circuit for a thermomagnetic motor apparatus. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	1.6	4
104	Risk Management of a Fusion Facility: Radiation Protection and Safety Integrated Approach for the Sorentina-RF Project. Environments - MDPI, 2022, 9, 71.	3.3	4
105	Neutronic analysis of iter cryopump system. Fusion Engineering and Design, 2009, 84, 1505-1509.	1.9	3
106	Applications of McCad for the automatic generation of MCNP 3D models in fusion neutronics. , 2013, , .		3
107	Results of an integration study of a diagnostics port plug in ITER. Fusion Engineering and Design, 2013, 88, 602-606.	1.9	3
108	Evidence of $^9\text{Be}(\alpha, n)^{12}\text{C}$ nuclear reactions during $^2\text{H}$ and hydrogen minority ICRH in JET-ILW hydrogen and deuterium plasmas. Nuclear Fusion, 2018, 58, 026033.	3.5	3

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109	Strategy and guidelines for the calibration of the ITER Radial Neutron Camera. Fusion Engineering and Design, 2019, 146, 2049-2052.	1.9	3
110	Neutronics studies for the novel design of lower port in DEMO. Fusion Engineering and Design, 2019, 146, 1394-1397.	1.9	3
111	Addressing the feasibility of inboard direct-line injection of high-speed pellets, for core fueling of DEMO. Fusion Engineering and Design, 2019, 146, 2426-2429.	1.9	3
112	Analysis of the outer divertor hot spot activity in the protection video camera recordings at JET. Fusion Engineering and Design, 2019, 139, 115-123.	1.9	3
113	On the slowing down of 14 MeV neutrons. Journal of Neutron Research, 2020, 22, 249-256.	1.1	3
114	A Neutronics Shielding Mock-Up Experiment for Reduction of Uncertainty on the Prediction of the ITER-TFC Nuclear Heating. Fusion Science and Technology, 2012, 61, 124-128.	1.1	2
115	On the slowing-down of 14 MeV fusion neutrons: A spectrometry benchmark and perspectives on future neutron science facilities. Europhysics Letters, 2019, 126, 12001.	2.0	2
116	Comparison between measurement and calculations for a 14 MeV neutron water activation experiment. EPJ Web of Conferences, 2020, 239, 21002.	0.3	2
117	Neutronic analyses in support of the conceptual design of the DTT tokamak radial neutron camera. Fusion Engineering and Design, 2020, 157, 111629.	1.9	2
118	Nuclear Analyses for the Assessment of the Loads on the ITER Radial Neutron Camera In-Port System and Evaluation of Its Measurement Performances. IEEE Transactions on Plasma Science, 2022, 50, 4150-4156.	1.3	2
119	The radiation analyses of ITER lower ports. Fusion Engineering and Design, 2010, 85, 1085-1089.	1.9	1
120	Progress on the integration of ITER diagnostics equatorial port plugs in Europe. , 2011, , .		1
121	Neutronic calculations in support of the design of the ITER High Resolution Neutron Spectrometer. Fusion Engineering and Design, 2011, 86, 1277-1281.	1.9	1
122	Design and Capabilities of a Custom-Made Thermostat for a High-Accuracy Adiabatic Calorimeter. International Journal of Thermophysics, 2011, 32, 471-480.	2.1	1
123	Impact of the layout of the ITER Radial Neutron Camera in-port system on the measurement of the neutron emissivity profile. Fusion Engineering and Design, 2013, 88, 1371-1376.	1.9	1
124	Contribution of random noise in the ITER RNC diamond neutron detectors pulses to the counting rate uncertainty. Fusion Engineering and Design, 2019, 146, 1454-1458.	1.9	1
125	Population modelling of the He II energy levels in tokamak plasmas: I. Collisional excitation model. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 045001.	1.5	1
126	Neutronics related integration studies of EU-DEMO pellet injection system. Fusion Engineering and Design, 2020, 158, 111753.	1.9	1



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127	Neutron streaming analyses and shielding optimization through ECRH openings in DTT Tokamak building. Fusion Engineering and Design, 2021, 171, 112690.	1.9	1
128	Production and transport modelling of Po-210 in DEMO reactor. Nuclear Fusion, 2022, 62, 056022.	3.5	1
129	Nuclear Analysis for the Upper Ports in the NB Cell in ITER. IEEE Transactions on Plasma Science, 2022, 50, 4551-4556.	1.3	1
130	Development of a Novel MCNP-OSCAR Fusion Interface for the 3-D Assessment of Gamma Dose Due to the Activated Corrosion Products. IEEE Transactions on Plasma Science, 2022, 50, 4539-4544.	1.3	1
131	Neutronic analysis of FAST. , 2009, , .		0
132	Preliminary neutronic analyses of ITER high resolution neutron spectrometer collimator. Fusion Engineering and Design, 2011, 86, 1204-1208.	1.9	0
133	Shutdown dose rate calculation along the ITER IVVS port. Fusion Engineering and Design, 2018, 136, 1404-1407.	1.9	0
134	Activity and decay heat calculations for the European DEMO WCLL breeder blanket module including activated LiPb flow. Fusion Engineering and Design, 2019, 146, 2552-2556.	1.9	0
135	Integral Benchmark Experiments on a Large Copper Block Using the GELINA Accelerator to Validate natCu Neutron Cross Sections From Different Neutron Cross-Sectional Databases. IEEE Transactions on Plasma Science, 2019, 47, 2943-2949.	1.3	0
136	Thermo-hydraulic modeling of the ITER radial neutron camera. AIP Conference Proceedings, 2020, , .	0.4	0
137	Nuclear Analyses of ITER Diagnostics Lower Ports. IEEE Transactions on Plasma Science, 2022, , 1-6.	1.3	0