

# M W Bongard

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3909149/publications.pdf>

Version: 2024-02-01

102  
papers

2,276  
citations

201674

27  
h-index

243625

44  
g-index

106  
all docs

106  
docs citations

106  
times ranked

1100  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multichannel grazing-incidence spectrometer for plasma impurity diagnosis: SPRED. Applied Optics, 1982, 21, 2115.	2.1	187
2	Plasma fluctuation measurements in tokamaks using beam-plasma interactions. Review of Scientific Instruments, 1990, 61, 3487-3495.	1.3	157
3	Fusion plasma experiments on TFTR: A 20 year retrospective. Physics of Plasmas, 1998, 5, 1577-1589.	1.9	91
4	Review of deuterium-tritium results from the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 2176-2188.	1.9	89
5	Plasma ion temperature measurements via charge exchange recombination radiation. Applied Physics Letters, 1983, 42, 239-241.	3.3	87
6	Density fluctuation measurements via beam emission spectroscopy (invited). Review of Scientific Instruments, 1992, 63, 4907-4912.	1.3	80
7	Convergence, electrostatic potential, and density measurements in a spherically convergent ion focus. Physics of Plasmas, 1997, 4, 4-15.	1.9	78
8	Turbulence imaging and applications using beam emission spectroscopy on DIII-D (invited). Review of Scientific Instruments, 2003, 74, 2014-2019.	1.3	76
9	Control of plasma shape and performance of the PBX tokamak experiment in high- $\beta_t$ / high- $\beta_p$ regimes. Physics of Fluids B, 1990, 2, 1271-1279.	1.7	65
10	Isotopic scaling of confinement in deuterium-tritium plasmas. Physics of Plasmas, 1995, 2, 2299-2307.	1.9	57
11	Technique for the experimental estimation of nonlinear energy transfer in fully developed turbulence. Physics of Plasmas, 1996, 3, 3998-4009.	1.9	57
12	Measurements of Nonlinear Energy Transfer in Turbulence in the Tokamak Fusion Test Reactor. Physical Review Letters, 1997, 79, 841-844.	7.8	48
13	Correlations of heat and momentum transport in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1300-1305.	1.7	47
14	Corrections to charge exchange spectroscopic measurements in TFTR due to energy-dependent excitation rates. Review of Scientific Instruments, 1988, 59, 1521-1523.	1.3	44
15	Fast flow phenomena in a toroidal plasma. Physics of Plasmas, 1995, 2, 2281-2285.	1.9	44
16	Wavelet-based time-delay estimation for time-resolved turbulent flow analysis. Review of Scientific Instruments, 2001, 72, 996-999.	1.3	43
17	A fast spectroscopic diagnostic for the measurement of plasma impurity ion dynamics. Review of Scientific Instruments, 1994, 65, 3238-3242.	1.3	42
18	Investigation of global Alfvén instabilities in the Tokamak Fusion Test Reactor. Physics of Fluids B, 1992, 4, 2122-2126.	1.7	37

#	ARTICLE	IF	CITATIONS
19	High- $\beta$ operation and magnetohydrodynamic activity on the TFTR tokamak. <i>Physics of Fluids B</i> , 1990, 2, 1287-1290.	1.7	35
20	The upgraded Pegasus Toroidal Experiment. <i>Nuclear Fusion</i> , 2006, 46, S603-S612.	3.5	34
21	Tokamak Startup Using Point-Source dc Helicity Injection. <i>Physical Review Letters</i> , 2009, 102, 225003.	7.8	34
22	Investigation of the time-delay estimation method for turbulent velocity inference. <i>Review of Scientific Instruments</i> , 2004, 75, 4278-4280.	1.3	33
23	Low-noise photodiode detector for optical fluctuation diagnostics. <i>Review of Scientific Instruments</i> , 1992, 63, 4924-4926.	1.3	32
24	Measurements of the radial structure and poloidal spectra of toroidal Alfvén eigenmodes in the Tokamak Fusion Test Reactor. <i>Physics of Fluids B</i> , 1992, 4, 3707-3712.	1.7	32
25	SPRED spectrograph upgrade: High-resolution grating and improved absolute calibrations. <i>Review of Scientific Instruments</i> , 1986, 57, 2043-2045.	1.3	31
26	Measurements of long-wavelength density fluctuations in TFTR. <i>Physics of Fluids B</i> , 1992, 4, 2922-2928.	1.7	31
27	Neutral beam emission spectroscopy diagnostic for measurement of density fluctuations on the TFTR tokamak. <i>Review of Scientific Instruments</i> , 1990, 61, 3496-3500.	1.3	30
28	Effects of edge plasma turbulence on radial correlation length measurements with BES. <i>Review of Scientific Instruments</i> , 1992, 63, 4931-4933.	1.3	27
29	Deuterium-tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1714-1724.	1.9	27
30	Tokamak startup using outboard current injection on the Pegasus Toroidal Experiment. <i>Nuclear Fusion</i> , 2011, 51, 073029.	3.5	27
31	Soft-x-ray camera for internal shape and current-density measurements on a noncircular tokamak. <i>Review of Scientific Instruments</i> , 1988, 59, 1831-1833.	1.3	22
32	Intense diagnostic neutral beam development for ITER. <i>Review of Scientific Instruments</i> , 1992, 63, 4934-4936.	1.3	22
33	Charge exchange recombination spectroscopy measurements of ion temperature and plasma rotation in PBX. <i>Review of Scientific Instruments</i> , 1985, 56, 865-867.	1.3	19
34	Non-inductive Production of ST Plasmas with Washer Gun Sources on the Pegasus Toroidal Experiment. <i>Journal of Fusion Energy</i> , 2007, 26, 43-46.	1.2	19
35	<i>Scientific Instruments</i> , 1995, 66, 1252-1255.	1.3	18
36	Performance and stability of near-unity aspect ratio plasmas in the Pegasus Toroidal Experiment. <i>Physics of Plasmas</i> , 2003, 10, 1705-1711.	1.9	18

#	ARTICLE	IF	CITATIONS
37	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. <i>Physics of Plasmas</i> , 2020, 27, 062507.	1.9	18
38	Characterization and parametric dependencies of low wavenumber pedestal turbulence in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	17
39	Optical diagnostic to measure ion temperature and parallel velocity fluctuations on the Tokamak Fusion Test Reactor. <i>Review of Scientific Instruments</i> , 1995, 66, 845-847.	1.3	16
40	Optical fluctuation measurements of turbulence using a diagnostic beam on Phaedrusâ€™. <i>Review of Scientific Instruments</i> , 1992, 63, 4928-4930.	1.3	15
41	Hyperfine spectrum of RbCl. <i>Journal of Chemical Physics</i> , 2006, 124, 244305.	3.0	15
42	A Hall sensor array for internal current profile constraint. <i>Review of Scientific Instruments</i> , 2010, 81, 10E105.	1.3	14
43	H-mode plasmas at very low aspect ratio on the Pegasus Toroidal Experiment. <i>Nuclear Fusion</i> , 2017, 57, 022018.	3.5	14
44	Advancing local helicity injection for non-solenoidal tokamak startup. <i>Nuclear Fusion</i> , 2019, 59, 076003.	3.5	14
45	Nuclear electric quadrupole moments of Rb from the hyperfine spectrum of RbF. <i>Journal of Chemical Physics</i> , 2006, 124, 244304.	3.0	13
46	Utilization of charge exchange recombination spectroscopy for the study of metallic ion transport in TFTR. <i>Review of Scientific Instruments</i> , 1988, 59, 1518-1520.	1.3	12
47	Tomographic imaging of MHD activity in tokamaks by combining diode arrays and a tangentially viewing pinhole camera. <i>Review of Scientific Instruments</i> , 1988, 59, 1819-1821.	1.3	12
48	An anomaly in the isotopomer shift of the hyperfine spectrum of LiI. <i>Journal of Chemical Physics</i> , 2005, 123, 134321.	3.0	12
49	Measurement of Peeling Mode Edge Current Profile Dynamics. <i>Physical Review Letters</i> , 2011, 107, 035003.	7.8	12
50	Beam emission spectroscopy diagnostic for the study of turbulence in Phaedrusâ€™ tokamak plasmas. <i>Review of Scientific Instruments</i> , 1990, 61, 3046-3048.	1.3	11
51	The Formation of a Tokamak-like Plasma in Initial Experiments Using an Outboard Plasma Gun Current Source. <i>Journal of Fusion Energy</i> , 2009, 28, 140-143.	1.2	11
52	Point-Source Helicity Injection Current Drive System for the Pegasus Toroidal Experiment. <i>Journal of Fusion Energy</i> , 2009, 28, 203-207.	1.2	11
53	A Thomson scattering diagnostic on the Pegasus Toroidal experiment. <i>Review of Scientific Instruments</i> , 2012, 83, 10E335.	1.3	11
54	Characterization of peeling modes in a low aspect ratio tokamak. <i>Nuclear Fusion</i> , 2014, 54, 114008.	3.5	10

#	ARTICLE	IF	CITATIONS
55	A novel, cost-effective, multi-point Thomson scattering system on the Pegasus Toroidal Experiment (invited). Review of Scientific Instruments, 2016, 87, 11E403.	1.3	10
56	High Confinement Mode and Edge Localized Mode Characteristics in a Near-Unity Aspect Ratio Tokamak. Physical Review Letters, 2016, 116, 175001.	7.8	10
57	On virial analysis at low aspect ratio. Physics of Plasmas, 2016, 23, .	1.9	10
58	Implementation of the $\alpha$ -CHERS diagnostic for D $\alpha$ operation of TFTR. Review of Scientific Instruments, 1995, 66, 643-645.	1.3	9
59	Analysis methods for fast impurity ion dynamics data. Review of Scientific Instruments, 1995, 66, 444-446.	1.3	9
60	Non-inductively driven tokamak plasmas at near-unity $\beta_t$ in the Pegasus toroidal experiment. Physics of Plasmas, 2018, 25, 056101.	1.9	9
61	Plasma fluctuation measurements in tokamaks using beam-plasma interactions (abstract). Review of Scientific Instruments, 1990, 61, 3070-3070.	1.3	8
62	Using a free-standing thermistor array to measure VUV emission from a tokamak plasma. Review of Scientific Instruments, 1993, 64, 2423-2427.	1.3	8
63	A compact multichannel spectrometer for Thomson scattering. Review of Scientific Instruments, 2012, 83, 10E330.	1.3	8
64	Progress on Thomson scattering in the Pegasus Toroidal Experiment. Journal of Instrumentation, 2013, 8, C11019-C11019.	1.2	8
65	Impedance of an intense plasma-cathode electron source for tokamak startup. Physics of Plasmas, 2016, 23, 052515.	1.9	8
66	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	1.3	8
67	Remote operation of the TFTR BES experiment from an off-site location. Review of Scientific Instruments, 1992, 63, 4803-4805.	1.3	7
68	$\alpha$ -CHERS: A spectroscopic experiment to detect nonthermal alpha particles on TFTR. Review of Scientific Instruments, 1992, 63, 5179-5181.	1.3	7
69	Spectrometer system and detector tests for the TFTR $\alpha$ -CHERS experiment. Review of Scientific Instruments, 1992, 63, 5182-5184.	1.3	7
70	Preparations for deuterium-tritium experiments on the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1560-1567.	1.9	7
71	A Lyman-alpha-based (VUV) plasma density fluctuation diagnostic design. Review of Scientific Instruments, 2001, 72, 992-995.	1.3	7
72	Full-wave modeling of the O $\alpha$ mode conversion in the Pegasus toroidal experiment. Physics of Plasmas, 2011, 18, 082501.	1.9	7

#	ARTICLE	IF	CITATIONS
73	Multi-point, high-speed passive ion velocity distribution diagnostic on the Pegasus Toroidal Experiment. Review of Scientific Instruments, 2012, 83, 10D516.	1.3	7
74	Beam emission imaging system for 2D plasma turbulence measurements. Review of Scientific Instruments, 1995, 66, 639-641.	1.3	6
75	Noninductively Driven Tokamak Plasmas at Near-Unity Toroidal Beta. Physical Review Letters, 2017, 119, 035001.	7.8	6
76	Continuous, edge localized ion heating during non-solenoidal plasma startup and sustainment in a low aspect ratio tokamak. Nuclear Fusion, 2017, 57, 076010.	3.5	6
77	Initial Experiments at High Normalized Current in the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2007, 26, 221-225.	1.2	4
78	Optimization and application of cooled avalanche photodiodes for spectroscopic fluctuation measurements with ultra-fast charge exchange recombination spectroscopy. Review of Scientific Instruments, 2016, 87, 11E551.	1.3	4
79	Spatial heterodyne spectroscopy for high speed measurements of Stark split neutral beam emission in a high temperature plasma. Review of Scientific Instruments, 2018, 89, 10D114.	1.3	4
80	Neutral beam emission spectroscopy diagnostic for measurement of density fluctuations on the TFTR tokamak (abstract). Review of Scientific Instruments, 1990, 61, 3073-3073.	1.3	3
81	Attainment of High Normalized Current by Current Profile Manipulation in the Pegasus Toroidal Experiment. Journal of Fusion Energy, 2008, 27, 20-24.	1.2	3
82	Dependence of the low to high confinement mode transition power threshold and turbulence flow shear on injected torque. Physics of Plasmas, 2009, 16, .	1.9	3
83	Initiation and sustainment of tokamak plasmas with local helicity injection as the majority current drive. Nuclear Fusion, 2018, 58, 096002.	3.5	3
84	Digital Control and Power Systems for the Pegasus-III Experiment. IEEE Transactions on Plasma Science, 2022, 50, 4021-4026.	1.3	3
85	A Coaxial Helicity Injection System for Nonsolenoidal Startup Studies on the PEGASUS-III Experiment. IEEE Transactions on Plasma Science, 2022, 50, 4015-4020.	1.3	3
86	Control and automation of the Pegasus multi-point Thomson scattering system. Review of Scientific Instruments, 2016, 87, 11E523.	1.3	2
87	A power-balance model for local helicity injection startup in a spherical tokamak. Nuclear Fusion, 2018, 58, 076011.	3.5	2
88	Radially scanning magnetic probes to study local helicity injection dynamics. Review of Scientific Instruments, 2018, 89, 10J103.	1.3	2
89	The New PEGASUS-III Experiment. IEEE Transactions on Plasma Science, 2022, 50, 4009-4014.	1.3	2
90	Iron concentration measurements on TFTR using charge exchange excited lines of helium-like iron in the 200-700 Å... region. Review of Scientific Instruments, 1990, 61, 3113-3115.	1.3	1

#	ARTICLE	IF	CITATIONS
91	Mechanized selection of fiber optic arrays for spectroscopy measurements. Review of Scientific Instruments, 1992, 63, 4921-4923.	1.3	1
92	of Scientific Instruments, 1995, 66, 919-919.	1.3	1
93	Linewidth-modulated motional Stark effect measurements of internal field structure in low-field configurations. Review of Scientific Instruments, 2001, 72, 1000-1003.	1.3	1
94	Full-wave modeling of the O-X mode conversion in the Pegasus Toroidal Experiment. , 2011, , .		1
95	Ion temperature and rotation fluctuation measurements with ultra-fast charge exchange recombination spectroscopy (UF-CHERS) in the DIII-D tokamak. Review of Scientific Instruments, 2021, 92, 053513.	1.3	1
96	Initial characterization of electron temperature and density profiles in PEGASUS spherical tokamak discharges driven solely by local helicity injection. Physics of Plasmas, 2021, 28, 102504.	1.9	1
97	Operation of a multichannel tangential bolometer on PBX. Review of Scientific Instruments, 1986, 57, 2099-2099.	1.3	0
98	Line shapes in charge exchange recombination spectroscopy. AIP Conference Proceedings, 1990, , .	0.4	0
99	Atomic processes and spectroscopic techniques applied to fusion plasma diagnostics. AIP Conference Proceedings, 1990, , .	0.4	0
100	Deuterium-tritium experiments on TFTR. AIP Conference Proceedings, 1995, , .	0.4	0
101	Implications for ITER CODAC from DIII-D experience. Fusion Engineering and Design, 2010, 85, 433-437.	1.9	0
102	Magnetic Turbulence and Current Drive during Local Helicity Injection. Physical Review Letters, 2022, 128, 105001.	7.8	0