John Sarff

List of Publications by Year
in descending order

56 papers	1,274 citations	304743 22 h-index	377865 34 g-index
56 all docs	56 docs citations	56 times ranked	688 citing authors

#	Article	IF	Citations
1	Locked modes and magnetic field errors in the Madison Symmetric Torus. Physics of Fluids B, 1992, 4, 4080-4085.	1.7	89
2	High confinement plasmas in the Madison Symmetric Torus reversed-field pinch. Physics of Plasmas, 2002, 9, 2061-2068.	1.9	87
3	Laser polarimetric measurement of equilibrium and fluctuating magnetic fields in a reversed field pinch (invited). Review of Scientific Instruments, 2003, 74, 1534-1540.	1.3	73
4	Measurement of the Hall Dynamo Effect during Magnetic Reconnection in a High-Temperature Plasma. Physical Review Letters, 2004, 93, 045002.	7.8	56
5	Quasi-single helicity spectra in the Madison Symmetric Torus. Physics of Plasmas, 2002, 9, 2868-2871.	1.9	51
6	Measurement of core velocity fluctuations and the dynamo in a reversed-field pinch. Physics of Plasmas, 1999, 6, 1813-1821.	1.9	50
7	Mass-Dependent Ion Heating during Magnetic Reconnection in a Laboratory Plasma. Physical Review Letters, 2009, 103, 145002.	7.8	50
8	The reversed field pinch. Nuclear Fusion, 2021, 61, 023001.	3.5	42
9	Fivefold confinement time increase in the Madison Symmetric Torus using inductive poloidal current drive. Physics of Plasmas, 1997, 4, 1632-1637.	1.9	41
10	Lowerâ€hybrid poloidal current drive for fluctuation reduction in a reversed field pinch. Physics of Plasmas, 1994, 1, 3517-3519.	1.9	37
11	Experimental scaling of fluctuations and confinement with Lundquist number in the reversed-field pinch. Physics of Plasmas, 1998, 5, 1004-1014.	1.9	36
12	Bifurcation to 3D Helical Magnetic Equilibrium in an Axisymmetric Toroidal Device. Physical Review Letters, 2011, 107, 255001.	7.8	33
13	First results from the Madison Symmetric Torus reversed field pinch. Physics of Fluids B, 1990, 2, 1367-1371.	1.7	30
14	Tomographic imaging of resistive mode dynamics in the Madison Symmetric Torus reversed-field pinch. Physics of Plasmas, 2006, 13, 012510.	1.9	30
15	Ambipolar magnetic fluctuationâ€induced heat transport in toroidal devices. Physics of Plasmas, 1996, 3, 1999-2005.	1.9	27
16	Tokamak-like confinement at high beta and low field in the reversed field pinch. Plasma Physics and Controlled Fusion, 2003, 45, A457-A470.	2.1	27
17	Sawteeth and energy confinement in the Madison Symmetric Torus reversedâ€field pinch. Physics of Plasmas, 1996, 3, 709-711.	1.9	26
18	Measurement of the Current Sheet during Magnetic Reconnection in a Toroidal Plasma. Physical Review Letters, 2003, 90, 035003.	7.8	26

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19	Measurements of the momentum and current transport from tearing instability in the Madison Symmetric Torus reversed-field pinch. Physics of Plasmas, 2009, 16, .	1.9	25
20	Locking of multiple resonant mode structures in the reversed-field pinch. Physics of Plasmas, 1998, 5, 2942-2946.	1.9	24
21	High-speed three-wave polarimeter-interferometer diagnostic for Madison symmetric torus. Review of Scientific Instruments, 2006, 77, 10F108.	1.3	24
22	Effect of Collisionality and Diamagnetism on the Plasma Dynamo. Physical Review Letters, 1995, 75, 1086-1089.	7.8	23
23	Transport reduction by current profile control in the reversedâ€field pinch. Physics of Plasmas, 1995, 2, 2440-2446.	1.9	22
24	EÃ—B flow shear and enhanced confinement in the Madison Symmetric Torus reversed-field pinch. Physics of Plasmas, 1998, 5, 1848-1854.	1.9	22
25	Modifications to the edge current profile with auxiliary edge current drive and improved confinement in a reversed-field pinch. Physics of Plasmas, 2000, 7, 3491-3494.	1.9	20
26	High-Î², improved confinement reversed-field pinch plasmas at high density. Physics of Plasmas, 2008, 15, 010701.	1.9	18
27	Experimental Observation of Anisotropic Magnetic Turbulence in a Reversed Field Pinch Plasma. Physical Review Letters, 2011, 107, 195002.	7.8	18
28	Dynamo-free plasma in the reversed field pinch. Physics of Plasmas, 2004, 11, L9-L12.	1.9	17
29	Magnetic-Fluctuation-Induced Particle Transport and Density Relaxation in a High-Temperature Plasma. Physical Review Letters, 2009, 103, 025001.	7.8	17
30	Dissipation range turbulent cascades in plasmas. Physics of Plasmas, 2012, 19, .	1.9	17
31	Measurement of energetic-particle-driven core magnetic fluctuations and induced fast-ion transport. Physics of Plasmas, 2013, 20, 030701.	1.9	17
32	Measurement of current profile dynamics in the Madison Symmetric Torus. Physics of Plasmas, 2004, 11, 1079-1086.	1.9	15
33	Two-dimensional time resolved measurements of the electron temperature in MST. Review of Scientific Instruments, 2006, 77, 10F318.	1.3	15
34	Kinetic Stress and Intrinsic Flow in a Toroidal Plasma. Physical Review Letters, 2013, 110, 065008.	7.8	15
35	Direct Measurement of a Toroidally Directed Zonal Flow in a Toroidal Plasma. Physical Review Letters, 2019, 122, 105001.	7.8	15
36	Reduced intermittency in the magnetic turbulence of reversed field pinch plasmas. Physics of Plasmas, 2005, 12, 030701.	1.9	14

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37	Observation of trapped-electron-mode microturbulence in reversed field pinch plasmas. Physics of Plasmas, 2018, 25, .	1.9	13
38	Equilibrium evolution in oscillating-field current-drive experiments. Physics of Plasmas, 2010, 17, .	1.9	12
39	Classical confinement and outward convection of impurity ions in the MST RFP. Physics of Plasmas, 2012, 19, .	1.9	12
40	Energetic-particle-driven instabilities and induced fast-ion transport in a reversed field pinch. Physics of Plasmas, 2014, 21, 056104.	1.9	12
41	Charge-to-mass-ratio-dependent ion heating during magnetic reconnection in the MST RFP. Physics of Plasmas, 2013, 20, .	1.9	11
42	Runaway of energetic test ions in a toroidal plasma. Physics of Plasmas, 2015, 22, .	1.9	11
43	Effect of resonant magnetic perturbations on three dimensional equilibria in the Madison Symmetric Torus reversed-field pinch. Physics of Plasmas, 2016, 23, 056104.	1.9	10
44	Dependence of Perpendicular Viscosity on Magnetic Fluctuations in a Stochastic Topology. Physical Review Letters, 2018, 120, 225002.	7.8	9
45	Measurements of Impurity Transport Due to Drift-Wave Turbulence in a Toroidal Plasma. Physical Review Letters, 2018, 121, 165002.	7.8	7
46	Evidence for drift waves in the turbulence of reversed field pinch plasmas. Physics of Plasmas, 2017, 24, .	1.9	6
47	Plasma flow in MST: Effects of edge biasing and momentum transport from nonlinear magnetic torques. European Physical Journal D, 2000, 50, 1471-1476.	0.4	5
48	Turbulence-driven anisotropic electron tail generation during magnetic reconnection. Physics of Plasmas, 2018, 25, 055705.	1.9	4
49	Dynamics of a reconnection-driven runaway ion tail in a reversed field pinch plasma. Physics of Plasmas, 2016, 23, 055702.	1.9	3
50	Computational study of runaway electrons in MST tokamak discharges with applied resonant magnetic perturbation. Physics of Plasmas, 2022, 29, .	1.9	3
51	Control of magnetic fluctuations in the reversed field pinch with edge current drive. Physics of Plasmas, 2001, 8, 1463-1466.	1.9	2
52	Linearized spectrum correlation analysis for line emission measurements. Review of Scientific Instruments, 2017, 88, 083513.	1.3	2
53	Dissipation in the magnetic turbulence of reversed field pinch plasmas. Physics of Plasmas, 2021, 28, .	1.9	2
54	Development of a multi-channel capacitive probe for electric field measurements with fine spatial and high time resolution. Review of Scientific Instruments, 2018, 89, 10J118.	1.3	1

#	Article	IF	Citations
55	Measurements of the Hall dynamo in the reversed field pinch edge during reconnection events. , 2007, , .		0
56	Direct measurements of the 3D plasma velocity in single-helical-axis RFP plasmas. Physics of Plasmas, 2021, 28, 012510.	1.9	0