

Stewart J Zweben

List of Publications by Year in descending order

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102487

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131
all docs

131
docs citations

131
times ranked

1802
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental validation of universal plasma blob formation mechanism. Nuclear Fusion, 2022, 62, 026027.	3.5	8
2	Correlation between the relative blob fraction and plasma parameters in NSTX. Physics of Plasmas, 2022, 29, .	1.9	9
3	Impact of edge harmonic oscillations on the divertor heat flux in NSTX. Physics of Plasmas, 2022, 29, 012503.	1.9	1
4	Dynamics of filaments during the edge-localized mode crash on NSTX. Physics of Plasmas, 2021, 28, .	1.9	7
5	Edge turbulence velocity preceding the L-H transition in NSTX. Physics of Plasmas, 2021, 28, .	1.9	10
6	Novel 2D velocity estimation method for large transient events in plasmas. Review of Scientific Instruments, 2021, 92, 083508.	1.3	6
7	Outer midplane neutral density measurements and H-mode fueling studies in NSTX-U. Nuclear Fusion, 2021, 61, 036002.	3.5	8
8	MHD-blob correlations in NSTX. Physics of Plasmas, 2020, 27, .	1.9	6
9	Disconnection of scrape off layer turbulence between the outer midplane and divertor target plate in NSTX. Nuclear Fusion, 2020, 60, 026004.	3.5	11
10	10.1063/5.0002876.1., 2020, , .		0
11	Blob wakes in NSTX. Physics of Plasmas, 2019, 26, .	1.9	3
12	Èâ€%Ã—â€%B configurations for high-throughput plasma mass separation: An outlook on possibilities and challenges. Physics of Plasmas, 2019, 26, .	1.9	26
13	Harnessing mass differential confinement effects in magnetized rotating plasmas to address new separation needs. Plasma Physics and Controlled Fusion, 2018, 60, 014018.	2.1	18
14	Divertor leg filaments in NSTX-U. Nuclear Fusion, 2018, 58, 126028.	3.5	18
15	Plasma mass separation. Physics of Plasmas, 2018, 25, .	1.9	49
16	Blob-hole correlation model for edge turbulence and comparisons with NSTX gas puff imaging data. Plasma Physics and Controlled Fusion, 2018, 60, 075015.	2.1	2
17	Invited Review Article: Gas puff imaging diagnostics of edge plasma turbulence in magnetic fusion devices. Review of Scientific Instruments, 2017, 88, 041101.	1.3	73
18	Two-dimensional turbulence cross-correlation functions in the edge of NSTX. Physics of Plasmas, 2017, 24, .	1.9	19

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19	Collisional considerations in axial-collection plasma mass filters. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	13
20	Outer midplane scrape-off layer profiles and turbulence in simulations of Alcator C-Mod inner-wall limited discharges. <i>Physics of Plasmas</i> , 2017, 24, 072502.	1.9	7
21	Observation of quasi-coherent edge fluctuations in Ohmic plasmas on National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2016, 23, 044502.	1.9	12
22	Theory based scaling of edge turbulence and implications for the scrape-off layer width. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	11
23	Mean flows and blob velocities in scrape-off layer (SOLT) simulations of an L-mode discharge on Alcator C-Mod. <i>Physics of Plasmas</i> , 2016, 23, 062305.	1.9	8
24	Initial experimental test of a helicon plasma based mass filter. <i>Plasma Sources Science and Technology</i> , 2016, 25, 035024.	3.1	24
25	Blob structure and motion in the edge and SOL of NSTX. <i>Plasma Physics and Controlled Fusion</i> , 2016, 58, 044007.	2.1	68
26	Comparison of velocimetry techniques for turbulent structures in gas-puff imaging data. <i>Review of Scientific Instruments</i> , 2016, 87, 023502.	1.3	13
27	Modeling the effect of lithium-induced pedestal profiles on scrape-off-layer turbulence and the heat flux width. <i>Physics of Plasmas</i> , 2015, 22, 092311.	1.9	16
28	Comparison of 3D flux-driven scrape-off layer turbulence simulations with gas-puff imaging of Alcator C-Mod inner-wall limited discharges. <i>Plasma Physics and Controlled Fusion</i> , 2015, 57, 054005.	2.1	20
29	Comparison of beam emission spectroscopy and gas puff imaging edge fluctuation measurements in National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2015, 22, 052310.	1.9	5
30	On filament structure and propagation within a commercial plasma globe. <i>Physics of Plasmas</i> , 2015, 22, 053509.	1.9	6
31	Effect of a deuterium gas puff on the edge plasma in NSTX. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 095010.	2.1	23
32	Comparison of edge turbulence imaging at two different poloidal locations in the scrape-off layer of Alcator C-Mod. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	19
33	Velocimetry of edge turbulence during the dithering Lâ€“H transition with dynamic programming based time-delay estimation technique in the EAST superconducting tokamak. <i>Plasma Physics and Controlled Fusion</i> , 2013, 55, 105006.	2.1	9
34	Comparison of Gas Puff Imaging Data in NSTX with DEGAS 2 Simulations. <i>Fusion Science and Technology</i> , 2013, 64, 29-38.	1.1	16
35	New dual gas puff imaging system with up-down symmetry on experimental advanced superconducting tokamak. <i>Review of Scientific Instruments</i> , 2012, 83, 123506.	1.3	24
36	Search for zonal flows in the edge turbulence of Alcator C-Mod. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 025008.	2.1	10

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37	Numerical investigation of edge plasma phenomena in an enhanced D-alpha discharge at Alcator C-Mod: Parallel heat flux and quasi-coherent edge oscillations. Physics of Plasmas, 2012, 19, .	1.9	10
38	Edge turbulence velocity changes with lithium coating on NSTX. Plasma Physics and Controlled Fusion, 2012, 54, 112001.	2.1	6
39	Rapidly Moving Divertor Plates in a Tokamak. Fusion Science and Technology, 2011, 60, 197-202.	1.1	2
40	Convective transport by intermittent blob-filaments: Comparison of theory and experiment. Physics of Plasmas, 2011, 18, .	1.9	417
41	Flow and shear behavior in the edge and scrape-off layer of L-mode plasmas in National Spherical Torus Experiment. Physics of Plasmas, 2011, 18, 012502.	1.9	27
42	Reduced model simulations of the scrape-off-layer heat-flux width and comparison with experiment. Physics of Plasmas, 2011, 18, 012305.	1.9	49
43	Comparison of scrape-off layer turbulence simulations with experiments using a synthetic gas puff imaging diagnostic. Physics of Plasmas, 2011, 18, .	1.9	32
44	Measurements of the motion of filaments in a plasma ball. Physics of Plasmas, 2010, 17, 053507.	1.9	6
45	Quiet periods in edge turbulence preceding the L-H transition in the National Spherical Torus Experiment. Physics of Plasmas, 2010, 17, .	1.9	83
46	10.1063/1.3476276.1., 2010, , .		3
47	Comparison of scrape-off layer turbulence in Alcator C-Mod with three dimensional gyrofluid computations. Physics of Plasmas, 2009, 16, .	1.9	48
48	Announcement: The 2008 James Clerk Maxwell Prize for Plasma Physics. Physics of Plasmas, 2009, 16, 010201.	1.9	0
49	Critical gradients and plasma flows in the edge plasma of Alcator C-Mod. Physics of Plasmas, 2008, 15, .	1.9	67
50	Diagnostics for the biased electrode experiment on NSTX. Review of Scientific Instruments, 2008, 79, 10F124.	1.3	8
51	Study of statistical properties of edge turbulence in the National Spherical Torus Experiment with the gas puff imaging diagnostic. Physics of Plasmas, 2007, 14, .	1.9	42
52	The Scrape-Off Layer in Alcator C-Mod: Transport, Turbulence, and Flows. Fusion Science and Technology, 2007, 51, 342-356.	1.1	14
53	Diagnostic Systems on Alcator C-Mod. Fusion Science and Technology, 2007, 51, 476-507.	1.1	62
54	Edge turbulence measurements in toroidal fusion devices. Plasma Physics and Controlled Fusion, 2007, 49, S1-S23.	2.1	283

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55	Two-Dimensional Turbulence Analysis Using High-Speed Visible Imaging in TJ-II Edge Plasmas. Fusion Science and Technology, 2006, 50, 301-306.	1.1	6
56	Impact of different confinement regimes on the two-dimensional structure of edge turbulence. Plasma Physics and Controlled Fusion, 2006, 48, B465-B473.	2.1	43
57	Characterization of small, Type V edge-localized modes in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 092510.	1.9	33
58	Derivation of time-dependent two-dimensional velocity field maps for plasma turbulence studies. Review of Scientific Instruments, 2006, 77, 103501.	1.3	38
59	Effect of plasma shaping on performance in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 056122.	1.9	33
60	Blob birth and transport in the tokamak edge plasma: Analysis of imaging data. Physics of Plasmas, 2006, 13, 092509.	1.9	122
61	Bispectral analysis of low- to high-confinement mode transitions in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 072301.	1.9	19
62	Radially propagating fluctuation structures in the scrape-off layer of Alcator C-Mod. Physics of Plasmas, 2006, 13, 012306.	1.9	124
63	Three-Dimensional Neutral Transport Simulations of Gas Puff Imaging Experiments. Contributions To Plasma Physics, 2004, 44, 294-300.	1.1	15
64	Observations of the turbulence in the scrape-off-layer of Alcator C-Mod and comparisons with simulation. Physics of Plasmas, 2003, 10, 1739-1747.	1.9	203
65	H-mode threshold and dynamics in the National Spherical Torus Experiment. Physics of Plasmas, 2003, 10, 1755-1764.	1.9	27
66	Gas puff imaging of edge turbulence (invited). Review of Scientific Instruments, 2003, 74, 2020-2026.	1.3	108
67	Edge turbulence imaging in the Alcator C-Mod tokamak. Physics of Plasmas, 2002, 9, 1981-1989.	1.9	238
68	First Results with the NSTX Fast Divertor Camera.. Journal of Plasma and Fusion Research, 2002, 78, 1278-1279.	0.4	12
69	Plasma turbulence imaging using high-power laser Thomson scattering. Review of Scientific Instruments, 2001, 72, 1151-1154.	1.3	5
70	Particle transport in the scrape-off layer and its relationship to discharge density limit in Alcator C-Mod. Physics of Plasmas, 2001, 8, 2107-2117.	1.9	220
71	Review of the Fusion Materials Research Program. Journal of Fusion Energy, 2000, 19, 45-64.	1.2	0
72	Experiments and modeling of an instability of an atmospheric pressure arc. Physics of Plasmas, 2000, 7, 4326.	1.9	9

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73	Neoclassical simulations of fusion alpha particles in pellet charge exchange experiments on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1999, 6, 2826-2833.	1.9	6
74	In-vessel tritium measurements using beta decay in the Tokamak Fusion Test Reactor. <i>Review of Scientific Instruments</i> , 1999, 70, 1119-1122.	1.3	5
75	Fusion performance analysis of plasmas with reversed magnetic shear in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1999, 6, 3247-3262.	1.9	1
76	Effective temperatures, sawtooth mixing, and stochastic diffusion ripple loss of fast H+ minority ions driven by ion cyclotron heating in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1999, 6, 2430-2436.	1.9	21
77	Distributions of alpha particles escaping to the wall during sawtooth oscillations in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1999, 6, 1117-1130.	1.9	7
78	Influence of vacuum region between plasma and the first wall on the poloidal distribution of diffusive loss of charged fusion products in tokamaks. <i>European Physical Journal D</i> , 1998, 48, 177-182.	0.4	3
79	Fusion plasma experiments on TFTR: A 20 year retrospective. <i>Physics of Plasmas</i> , 1998, 5, 1577-1589.	1.9	91
80	Toroidal Alfvén eigenmodes in TFTR deuterium-tritium plasmas. <i>Physics of Plasmas</i> , 1998, 5, 1703-1711.	1.9	33
81	Deuterium-tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1714-1724.	1.9	27
82	Alpha-driven magnetohydrodynamics (MHD) and MHD-induced alpha loss in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1610-1616.	1.9	16
83	Alpha particle losses from Tokamak Fusion Test Reactor deuterium-tritium plasmas. <i>Physics of Plasmas</i> , 1996, 3, 1875-1880.	1.9	25
84	Enhanced loss of fusion products during mode conversion heating in TFTR. , 1996, , .		0
85	Enhancement of Tokamak Fusion Test Reactor performance by lithium conditioning. <i>Physics of Plasmas</i> , 1996, 3, 1892-1897.	1.9	181
86	Deuterium-tritium experiments on TFTR. <i>AIP Conference Proceedings</i> , 1995, , .	0.4	0
87	Enhanced performance of deuterium-tritium fueled supershots using extensive lithium conditioning in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1995, 2, 4252-4256.	1.9	36
88	Measurement of limiter heating due to alpha particle losses during high fusion power deuterium-tritium operation of the TFTR tokamak. <i>Review of Scientific Instruments</i> , 1995, 66, 354-356.	1.3	4
89	Deuterium-tritium high confinement (H-mode) studies in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1995, 2, 2366-2374.	1.9	26
90	Review of deuterium-tritium results from the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1995, 2, 2176-2188.	1.9	89

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91	Preparations for deuterium-tritium experiments on the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1560-1567.	1.9	7
92	Anomalous losses of deuterium-deuterium fusion products in the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1469-1478.	1.9	29
93	Model for collisional fast ion diffusion into Tokamak Fusion Test Reactor loss cone. Physics of Plasmas, 1994, 1, 3857-3870.	1.9	12
94	Midplane measurements of charged fusion product diffusion in the Tokamak Fusion Test Reactor. Physics of Fluids B, 1993, 5, 1559-1566.	1.7	13
95	Scintillator studies with MeV charged particle beams. Review of Scientific Instruments, 1993, 64, 2459-2465.	1.3	10
96	Extension of the energy range of the moveable fast ion probe on TFTR. Review of Scientific Instruments, 1992, 63, 4562-4564.	1.3	3
97	Calibration of the TFTR lost alpha diagnostic. Review of Scientific Instruments, 1992, 63, 4418-4426.	1.3	8
98	Calibration of scintillation detectors for MeV charged fusion products. Review of Scientific Instruments, 1992, 63, 4542-4544.	1.3	10
99	Alpha particle diagnostics using impurity pellet injection (invited). Review of Scientific Instruments, 1992, 63, 4499-4504.	1.3	24
100	Modeling fast alpha-particle distributions. Review of Scientific Instruments, 1992, 63, 4760-4762.	1.3	1
101	Operating experiences with the TFTR escaping alpha detectors. Review of Scientific Instruments, 1992, 63, 4565-4567.	1.3	14
102	Status and Plans for TFTR. Fusion Science and Technology, 1992, 21, 1324-1331.	0.6	23
103	High-Q plasmas in the TFTR tokamak. Physics of Fluids B, 1991, 3, 2308-2314.	1.7	17
104	Experiments utilizing ion cyclotron range of frequencies heating on the TFTR tokamak. Physics of Fluids B, 1991, 3, 2270-2276.	1.7	9
105	Comparison of steady-state and perturbative transport coefficients in TFTR. Physics of Fluids B, 1991, 3, 2315-2323.	1.7	29
106	MeV ion confinement in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1411-1414.	1.7	14
107	Alpha-Particle Experiments on the Tokamak Fusion Test Reactor and the Compact Ignition Tokamak. Fusion Science and Technology, 1990, 18, 573-577.	0.6	1
108	High-beta operation and magnetohydrodynamic activity on the TFTR tokamak. Physics of Fluids B, 1990, 2, 1287-1290.	1.7	35

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109	Correlations of heat and momentum transport in the TFTR tokamak. <i>Physics of Fluids B</i> , 1990, 2, 1300-1305.	1.7	47
110	Constraints on escaping alpha particle detectors for ignited tokamaks. <i>Review of Scientific Instruments</i> , 1990, 61, 3505-3508.	1.3	8
111	Visible imaging of the diagnostic neutral beam on TFTR. <i>Review of Scientific Instruments</i> , 1990, 61, 2940-2942.	1.3	3
112	Collector probe measurement of fusion tritons in TFTR. <i>Review of Scientific Instruments</i> , 1990, 61, 3199-3201.	1.3	8
113	Diagnostics of alpha particles and their effects (abstract). <i>Review of Scientific Instruments</i> , 1990, 61, 3229-3229.	1.3	0
114	Constraints on escaping alpha particle detectors for ignited tokamaks (abstract). <i>Review of Scientific Instruments</i> , 1990, 61, 3233-3233.	1.3	2
115	Fluctuations and anomalous transport in tokamaks. <i>Physics of Fluids B</i> , 1990, 2, 2879-2903.	1.7	447
116	Four-channel ZnS scintillator measurements of escaping tritons in TFTR. <i>Review of Scientific Instruments</i> , 1989, 60, 576-587.	1.3	14
117	Visible imaging of edge fluctuations in the TFTR tokamak. <i>Physics of Fluids B</i> , 1989, 1, 2058-2065.	1.7	83
118	Tokamak Fusion Test Reactor Central Ignition Scenarios. <i>Fusion Science and Technology</i> , 1988, 13, 57-86.	0.6	6
119	Scintillation detector for escaping alphas and tritons in TFTR. <i>Review of Scientific Instruments</i> , 1986, 57, 1774-1776.	1.3	14
120	Approaches to the diagnostics of alpha particles in tokamaks (invited). <i>Review of Scientific Instruments</i> , 1986, 57, 1723-1728.	1.3	18
121	Nuclear reaction diagnostics of fast confined and escaping alpha particles. <i>Review of Scientific Instruments</i> , 1986, 57, 1777-1779.	1.3	17
122	Search for coherent structure within tokamak plasma turbulence. <i>Physics of Fluids</i> , 1985, 28, 974.	1.4	143