

David R Smith

List of Publications by Year in descending order

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62
papers

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citations

304743

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36
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64
all docs

64
docs citations

64
times ranked

1031
citing authors

#	ARTICLE	IF	CITATIONS
1	A study of molybdenum influxes and transport in Alcator C-Mod. Nuclear Fusion, 2001, 41, 585-596.	3.5	101
2	Confinement and local transport in the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2007, 47, 499-509.	3.5	98
3	Short-Scale Turbulent Fluctuations Driven by the Electron-Temperature Gradient in the National Spherical Torus Experiment. Physical Review Letters, 2008, 101, 075001.	7.8	74
4	Correlations between quasi-coherent fluctuations and the pedestal evolution during the inter-edge	1.9	69
5	Progress towards high performance plasmas in the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2005, 45, S168-S180.	3.5	60
6	A collective scattering system for measuring electron gyroscale fluctuations on the National Spherical Torus Experiment. Review of Scientific Instruments, 2008, 79, 123501.	1.3	56
7	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	3.5	53
8	Density Gradient Stabilization of Electron Temperature Gradient Driven Turbulence in a Spherical Tokamak. Physical Review Letters, 2011, 106, 165005.	7.8	48
9	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
10	Observations of Reduced Electron Gyroscale Fluctuations in National Spherical Torus Experiment H -Mode Plasmas with Large E \vec{A} B \vec{A} B Flow Shear. Physical Review Letters, 2009, 102, 225005.	7.8	41
11	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	3.5	41
12	Overview of recent physics results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2007, 47, S645-S657.	3.5	40
13	Suppression of Electron Temperature Gradient Turbulence via Negative Magnetic Shear in NSTX. Physical Review Letters, 2011, 106, 055003.	7.8	39
14	Effect of plasma shaping on performance in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 056122.	1.9	33
15	Internal transport barriers in the National Spherical Torus Experiment. Physics of Plasmas, 2009, 16, .	1.9	32
16	Study of turbulent fluctuations driven by the electron temperature gradient in the National Spherical Torus Experiment. Nuclear Fusion, 2009, 49, 055001.	3.5	30
17	Microwave scattering system design for λ_e scale turbulence measurements on NSTX. Review of Scientific Instruments, 2004, 75, 3840-3842.	1.3	29
18	Progress in characterization of the pedestal stability and turbulence during the edge-localized-mode cycle on National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 093026.	3.5	28

#	ARTICLE	IF	CITATIONS
19	Overview of the beam emission spectroscopy diagnostic system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2010, 81, 10D717.	1.3	26
20	Experimental study of parametric dependence of electron-scale turbulence in a spherical tokamak. Physics of Plasmas, 2012, 19, .	1.9	25
21	Impurity transport studies in NSTX neutral beam heated H-mode plasmas. Nuclear Fusion, 2009, 49, 085028.	3.5	23
22	Effect of a deuterium gas puff on the edge plasma in NSTX. Plasma Physics and Controlled Fusion, 2014, 56, 095010.	2.1	23
23	Electron-scale turbulence spectra and plasma thermal transport responding to continuous $E \times B$ shear ramp-up in a spherical tokamak. Nuclear Fusion, 2013, 53, 083007.	3.5	21
24	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
25	Suppressing electron turbulence and triggering internal transport barriers with reversed magnetic shear in the National Spherical Torus Experiment. Physics of Plasmas, 2012, 19, .	1.9	20
26	Recent progress in understanding electron thermal transport in NSTX. Nuclear Fusion, 2017, 57, 072002.	3.5	20
27	NSTX/NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2019, 59, 112007.	3.5	20
28	Identification of microtearing modes below the ion gyroscale in the National Spherical Torus Experiment. Plasma Physics and Controlled Fusion, 2011, 53, 035013.	2.1	19
29	Observation of ion scale fluctuations in the pedestal region during the edge-localized-mode cycle on the National Spherical Torus Experiment. Physics of Plasmas, 2013, 20, 012505.	1.9	18
30	Effect of magnetic perturbations on turbulence-flow dynamics at the L-H transition on DIII-D. Physics of Plasmas, 2020, 27, 062507.	1.9	18
31	Progress towards steady state on NSTX. Nuclear Fusion, 2006, 46, S22-S28.	3.5	17
32	Characterization and parametric dependencies of low wavenumber pedestal turbulence in the National Spherical Torus Experiment. Physics of Plasmas, 2013, 20, .	1.9	17
33	Stabilization of electron-scale turbulence by electron density gradient in national spherical torus experiment. Physics of Plasmas, 2015, 22, .	1.9	14
34	Spatial resolution study and power calibration of the high- k scattering system on NSTX. Review of Scientific Instruments, 2008, 79, 10E723.	1.3	13
35	Low-noise, high-speed detector development for optical turbulence fluctuation measurements for NSTX. Review of Scientific Instruments, 2010, 81, 10D718.	1.3	13
36	Diagnostic performance of the beam emission spectroscopy system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2012, 83, 10D502.	1.3	13

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37	Measurements and simulations of low-wavenumber pedestal turbulence in the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 113029.	3.5	13
38	Time-dependent experimental identification of inter-ELM microtearing modes in the tokamak edge on DIII-D. Nuclear Fusion, 2021, 61, 116038.	3.5	13
39	Progress in understanding the enhanced pedestal H-mode in NSTX. Nuclear Fusion, 2014, 54, 083021.	3.5	12
40	Electron gyroscale fluctuation measurements in National Spherical Torus Experiment H-mode plasmas. Physics of Plasmas, 2009, 16, 112507.	1.9	10
41	Overview of physics results from NSTX. Nuclear Fusion, 2011, 51, 094011.	3.5	10
42	Fast response of electron-scale turbulence to auxiliary heating cessation in National Spherical Torus Experiment. Physics of Plasmas, 2015, 22, .	1.9	10
43	A synthetic diagnostic for validation of electron gyroradius scale turbulence simulations against coherent scattering measurements. Physics of Plasmas, 2010, 17, .	1.9	8
44	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	1.3	8
45	Enhanced pedestal H-mode at low edge ion collisionality on NSTX. Physics of Plasmas, 2020, 27, 072511.	1.9	8
46	Calibration of the collective scattering system on NSTX. , 2009, , .		7
47	â€˜Beam-emission spectroscopyâ€™ diagnostics also measure edge fast-ion light. Plasma Physics and Controlled Fusion, 2011, 53, 085007.	2.1	7
48	Exploring the regime of validity of global gyrokinetic simulations with spherical tokamak plasmas. Nuclear Fusion, 2020, 60, 026005.	3.5	7
49	Quantitative comparisons of electron-scale turbulence measurements in NSTX via synthetic diagnostics for high- k scattering. Plasma Physics and Controlled Fusion, 2020, 62, 075001.	2.1	7
50	Ultrafast spectroscopy diagnostic to measure localized ion temperature and toroidal velocity fluctuations. Review of Scientific Instruments, 2010, 81, 10D714.	1.3	6
51	Validation of gyrokinetic simulations of a National Spherical Torus eXperiment H-mode plasma and comparisons with a high- k scattering synthetic diagnostic. Plasma Physics and Controlled Fusion, 2019, 61, 115015.	2.1	6
52	Initial transport and turbulence analysis and gyrokinetic simulation validation in NSTX-U L-mode plasmas. Nuclear Fusion, 2019, 59, 056027.	3.5	6
53	Investigation of a transient energetic charge exchange flux enhancement (â€˜spike-on-tailâ€™) observed in neutral-beam-heated H-mode discharges in the National Spherical Torus Experiment. Nuclear Fusion, 2012, 52, 013014.	3.5	5
54	Comparison of beam emission spectroscopy and gas puff imaging edge fluctuation measurements in National Spherical Torus Experiment. Physics of Plasmas, 2015, 22, 052310.	1.9	5

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55	Validation of gyrokinetic simulations in NSTX and projections for high-k turbulence measurements in NSTX-U. <i>Physics of Plasmas</i> , 2020, 27, 122505.	1.9	4
56	Analytic, high- $\hat{\nu}^2$ solutions of the helical Grad-Shafranov equation. <i>Physics of Plasmas</i> , 2004, 11, 3752-3757.	1.9	3
57	Relationship between edge localized mode severity and electron transport in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2008, 15, 056119.	1.9	2
58	Experimental observation of electron-scale turbulence evolution across the L-H transition in the National Spherical Torus Experiment. <i>Nuclear Fusion</i> , 2019, 59, 096045.	3.5	2
59	Collective scattering system for transport study on NSTX. <i>Journal of Physics: Conference Series</i> , 2010, 227, 012004.	0.4	1
60	Evolution patterns and parameter regimes in edge localized modes on the National Spherical Torus Experiment. <i>Plasma Physics and Controlled Fusion</i> , 2016, 58, 045003.	2.1	1
61	Measuring plasma turbulence using low coherence microwave radiation. <i>Applied Physics Letters</i> , 2012, 100, 084107.	3.3	0
62	Scoping study of detecting high harmonic fast waves in NSTX-U hot core plasma directly using beam emission spectroscopy. <i>Review of Scientific Instruments</i> , 2021, 92, 053521.	1.3	0