

David R Smith

List of Publications by Year in descending order

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62
papers

1,420
citations

304743

22
h-index

345221

36
g-index

64
all docs

64
docs citations

64
times ranked

1031
citing authors

#	ARTICLE	IF	CITATIONS
1	Scoping study of detecting high harmonic fast waves in NSTX-U hot core plasma directly using beam emission spectroscopy. Review of Scientific Instruments, 2021, 92, 053521.	1.3	0
2	Time-dependent experimental identification of inter-ELM microtearing modes in the tokamak edge on DIII-D. Nuclear Fusion, 2021, 61, 116038.	3.5	13
3	Exploring the regime of validity of global gyrokinetic simulations with spherical tokamak plasmas. Nuclear Fusion, 2020, 60, 026005.	3.5	7
4	Enhanced pedestal H-mode at low edge ion collisionality on NSTX. Physics of Plasmas, 2020, 27, 072511.	1.9	8
5	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
6	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
7	Validation of gyrokinetic simulations in NSTX and projections for high- k turbulence measurements in NSTX-U. Physics of Plasmas, 2020, 27, 122505.	1.9	4
8	Experimental observation of electron-scale turbulence evolution across the L-H transition in the National Spherical Torus Experiment. Nuclear Fusion, 2019, 59, 096045.	3.5	2
9	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
10	NSTX/NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2019, 59, 112007.	3.5	20
11	Initial transport and turbulence analysis and gyrokinetic simulation validation in NSTX-U L-mode plasmas. Nuclear Fusion, 2019, 59, 056027.	3.5	6
12	Extracting the turbulent flow-field from beam emission spectroscopy images using velocimetry. Review of Scientific Instruments, 2018, 89, 10E107.	1.3	8
13	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
14	Recent progress in understanding electron thermal transport in NSTX. Nuclear Fusion, 2017, 57, 072002.	3.5	20
15	Evolution patterns and parameter regimes in edge localized modes on the National Spherical Torus Experiment. Plasma Physics and Controlled Fusion, 2016, 58, 045003.	2.1	1
16	Stabilization of electron-scale turbulence by electron density gradient in national spherical torus experiment. Physics of Plasmas, 2015, 22, .	1.9	14
17	Fast response of electron-scale turbulence to auxiliary heating cessation in National Spherical Torus Experiment. Physics of Plasmas, 2015, 22, .	1.9	10
18	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

#	ARTICLE	IF	CITATIONS
19	Correlations between quasi-coherent fluctuations and the pedestal evolution during the inter-edge	1.9	69
20	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	3.5	21
21	Effect of a deuterium gas puff on the edge plasma in NSTX. Plasma Physics and Controlled Fusion, 2014, 56, 095010.	2.1	23
22	Progress in understanding the enhanced pedestal H-mode in NSTX. Nuclear Fusion, 2014, 54, 083021.	3.5	12
23	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	3.5	53
24	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
25	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
26	Characterization and parametric dependencies of low wavenumber pedestal turbulence in the National Spherical Torus Experiment. Physics of Plasmas, 2013, 20, .	1.9	17
27	Measurements and simulations of low-wavenumber pedestal turbulence in the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 113029.	3.5	13
28	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
29	Experimental study of parametric dependence of electron-scale turbulence in a spherical tokamak. Physics of Plasmas, 2012, 19, .	1.9	25
30	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
31	Measuring plasma turbulence using low coherence microwave radiation. Applied Physics Letters, 2012, 100, 084107.	3.3	0
32	Diagnostic performance of the beam emission spectroscopy system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2012, 83, 10D502.	1.3	13
33	Investigation of a transient energetic charge exchange flux enhancement ($\tilde{\alpha}$ spike-on-tail TM) observed in neutral-beam-heated H-mode discharges in the National Spherical Torus Experiment. Nuclear Fusion, 2012, 52, 013014.	3.5	5
34	Overview of physics results from NSTX. Nuclear Fusion, 2011, 51, 094011.	3.5	10
35	Density Gradient Stabilization of Electron Temperature Gradient Driven Turbulence in a Spherical Tokamak. Physical Review Letters, 2011, 106, 165005.	7.8	48
36	Suppression of Electron Temperature Gradient Turbulence via Negative Magnetic Shear in NSTX. Physical Review Letters, 2011, 106, 055003.	7.8	39

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37	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
38	Beam-emission spectroscopy diagnostics also measure edge fast-ion light. Plasma Physics and Controlled Fusion, 2011, 53, 085007.	2.1	7
39	Collective scattering system for transport study on NSTX. Journal of Physics: Conference Series, 2010, 227, 012004.	0.4	1
40	Ultrafast spectroscopy diagnostic to measure localized ion temperature and toroidal velocity fluctuations. Review of Scientific Instruments, 2010, 81, 10D714.	1.3	6
41	Low-noise, high-speed detector development for optical turbulence fluctuation measurements for NSTX. Review of Scientific Instruments, 2010, 81, 10D718.	1.3	13
42	Overview of the beam emission spectroscopy diagnostic system on the National Spherical Torus Experiment. Review of Scientific Instruments, 2010, 81, 10D717.	1.3	26
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	Electron gyroscale fluctuation measurements in National Spherical Torus Experiment H-mode plasmas. Physics of Plasmas, 2009, 16, 112507.	1.9	10
45	Internal transport barriers in the National Spherical Torus Experiment. Physics of Plasmas, 2009, 16, .	1.9	32
46	Observations of Reduced Electron Gyroscale Fluctuations in National Spherical Torus Experiment $H\text{-Mode Plasmas with Large } E \times B \text{ Flow Shear. Physical Review Letters, 2009, 102, 225005.}$	7.8	41
47	Calibration of the collective scattering system on NSTX. , 2009, , .		7
48	Impurity transport studies in NSTX neutral beam heated H-mode plasmas. Nuclear Fusion, 2009, 49, 085028.	3.5	23
49	Study of turbulent fluctuations driven by the electron temperature gradient in the National Spherical Torus Experiment. Nuclear Fusion, 2009, 49, 055001.	3.5	30
50	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	3.5	41
51	Relationship between edge localized mode severity and electron transport in the National Spherical Torus Experiment. Physics of Plasmas, 2008, 15, 056119.	1.9	2
52	Spatial resolution study and power calibration of the high-k scattering system on NSTX. Review of Scientific Instruments, 2008, 79, 10E723.	1.3	13
53	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
54	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

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55	Confinement and local transport in the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2007, 47, 499-509.	3.5	98
56	Overview of recent physics results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2007, 47, S645-S657.	3.5	40
57	Progress towards steady state on NSTX. Nuclear Fusion, 2006, 46, S22-S28.	3.5	17
58	Effect of plasma shaping on performance in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 056122.	1.9	33
59	Progress towards high performance plasmas in the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2005, 45, S168-S180.	3.5	60
60	Analytic, high- β^2 solutions of the helical Grad-Shafranov equation. Physics of Plasmas, 2004, 11, 3752-3757.	1.9	3
61	Microwave scattering system design for λ_e scale turbulence measurements on NSTX. Review of Scientific Instruments, 2004, 75, 3840-3842.	1.3	29
62	A study of molybdenum influxes and transport in Alcator C-Mod. Nuclear Fusion, 2001, 41, 585-596.	3.5	101