Anders H Nielsen

List of Publications by Year
in descending order

121	3,759	94433 37	149698 56
papers	citations	h-index	g-index

124	124	124	2119
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Computations of Intermittent Transport in Scrape-Off Layer Plasmas. Physical Review Letters, 2004, 92, 165003.	7.8	150
2	Overview of the JET results in support to ITER. Nuclear Fusion, 2017, 57, 102001.	3.5	150
3	Fluctuations and transport in the TCV scrape-off layer. Nuclear Fusion, 2007, 47, 667-676.	3.5	147
4	Interchange turbulence in the TCV scrape-off layer. Plasma Physics and Controlled Fusion, 2006, 48, L1-L10.	2.1	135
5	Turbulence and intermittent transport at the boundary of magnetized plasmas. Physics of Plasmas, 2005, 12, 062309.	1.9	100
6	Mechanism and scaling for convection of isolated structures in nonuniformly magnetized plasmas. Physics of Plasmas, 2005, 12, 090701.	1.9	94
7	New Edge Coherent Mode Providing Continuous Transport in Long-Pulse H-mode Plasmas. Physical Review Letters, 2014, 112, 185004.	7.8	93
8	Coherent structures in twoâ€dimensional plasma turbulence. Physics of Fluids B, 1991, 3, 1609-1625.	1.7	87
9	Overview of the JET preparation for deuteriumâ€“tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
10	Dissipative processes in interchange driven scrape-off layer turbulence. Nuclear Fusion, 2007, 47, 417-433.	3.5	83
11	Blob/hole formation and zonal-flow generation in the edge plasma of the JET tokamak. Nuclear Fusion, 2009, 49, 092002.	3.5	81
12	Collisionality dependent transport in TCV SOL plasmas. Plasma Physics and Controlled Fusion, 2007, 49, B47-B57.	2.1	76
13	Efficient generation of energetic ions in multi-ion plasmas by radio-frequency heating. Nature Physics, 2017, 13, 973-978.	16.7	73
14	Turbulent transport in lowâ€îº plasmas. Physics of Plasmas, 1996, 3, 1530-1544.	1.9	71
15	Overview of the JET results with the ITER-like wall. Nuclear Fusion, 2013, 53, 104002.	3.5	70
16	Turbulent transport in the TCV SOL. Journal of Nuclear Materials, 2007, 363-365, 575-580.	2.7	64
17	Three dimensional simulations of plasma filaments in the scrape off layer: A comparison with models of reduced dimensionality. Physics of Plasmas, 2014, 21, .	1.9	63
18	Shear flow generation and energetics in electromagnetic turbulence. Physics of Plasmas, 2005, 12, 052515.	1.9	61

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19	Parallel SOL flow on TCV. Journal of Nuclear Materials, 2007, 363-365, 505-510.	2.7	59
20	The influence of finite Larmor radius effects on the radial interchange motions of plasma filaments. Physics of Plasmas, 2011, 18, .	1.9	52
21	Overview of the TCV tokamak program: scientific progress and facility upgrades. Nuclear Fusion, 2017, 57, 102011.	3.5	52
22	The European turbulence code benchmarking effort: turbulence driven by thermal gradients in magnetically confined plasmas. Plasma Physics and Controlled Fusion, 2008, 50, 124015.	2.1	51
23	Turbulence spreading, anomalous transport, and pinch effect. Physics of Plasmas, 2005, 12, 122306.	1.9	48
24	Interpretation of fast measurements of plasma potential, temperature and density in SOL of ASDEX Upgrade. Nuclear Fusion, 2010, 50, 105001.	3.5	48
25	Formation and temporal evolution of the Lamb-dipole. Physics of Fluids, 1997, 9, 982-991.	4.0	46
26	Dispersion of ideal particles in a two-dimensional model of electrostatic turbulence. Physics of Plasmas, 1999, 6, 4575-4585.	1.9	46
27	Accuracy of Spectral and Finite Difference Schemes in 2D Advection Problems. SIAM Journal of Scientific Computing, 2003, 25, 104-126.	2.8	45
28	Two-dimensional turbulence in square and circular domains with no-slip walls. European Journal of Mechanics, B/Fluids, 2001, 20, 557-576.	2.5	43
29	Physics research on the TCV tokamak facility: from conventional to alternative scenarios and beyond. Nuclear Fusion, 2019, 59, 112023.	3.5	43
30	Scrape-off layer transport and filament characteristics in high-density tokamak regimes. Nuclear Fusion, 2020, 60, 016001.	3.5	43
31	Blob dynamics in the TORPEX experiment: a multi-code validation. Plasma Physics and Controlled Fusion, 2016, 58, 044005.	2.1	41
32	Statistical properties of transport in plasma turbulence. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 321, 355-365.	2.1	39
33	Turbulence simulations of blob formation and radial propagation in toroidally magnetized plasmas. Physica Scripta, 2006, T122, 89-103.	2.5	39
34	Simulation of transition dynamics to high confinement in fusion plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 3097-3101.	2.1	39
35	Intermittent convective transport carried by propagating electromagnetic filamentary structures in nonuniformly magnetized plasma. Physics of Plasmas, 2010, 17, 022501.	1.9	38
36	Experimental and numerical characterization of the turbulence in the scrape-off layer of MAST. Plasma Physics and Controlled Fusion, 2013, 55, 025005.	2.1	38

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37	Numerical modeling of the transition from low to high confinement in magnetically confined plasma. Plasma Physics and Controlled Fusion, 2016, 58, 014031.	2.1	38
38	Investigation into the formation of the scrape-off layer density shoulder in JET ITER-like wall L-mode and H-mode plasmas. Nuclear Fusion, 2018, 58, 056001.	3.5	38
39	Overview of physics studies on ASDEX Upgrade. Nuclear Fusion, 2019, 59, 112014.	3.5	38
40	Shear-flow instability in a rotating fluid. Journal of Fluid Mechanics, 1999, 387, 177-204.	3.4	36
41	Two-dimensional convection and interchange motions in fluids and magnetized plasmas. Physica Scripta, 2006, T122, 104-124.	2.5	36
42	Simulations of edge and scrape off layer turbulence in mega ampere spherical tokamak plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 095011.	2.1	36
43	Collisional transport across the magnetic field in drift-fluid models. Physics of Plasmas, 2016, 23, .	1.9	35
44	Numerical simulations of blobs with ion dynamics. Plasma Physics and Controlled Fusion, 2017, 59, 025012.	2.1	35
45	Modification of SOL profiles and fluctuations with line-average density and divertor flux expansion in TCV. Nuclear Fusion, 2017, 57, 116014.	3.5	35
46	Dependence on plasma shape and plasma fueling for small edge-localized mode regimes in TCV and ASDEX Upgrade. Nuclear Fusion, 2019, 59, 086020.	3.5	34
47	Overview of JET results. Nuclear Fusion, 2011, 51, 094008.	3.5	33
48	Dynamics of Lâ€“H transition and I-phase in EAST. Nuclear Fusion, 2014, 54, 103002.	3.5	33
49	Dynamics of a nonlinear dipole vortex. Physics of Fluids, 1995, 7, 2220-2229.	4.0	31
50	Plasma particle sources due to interactions with neutrals in a turbulent scrape-off layer of a toroidally confined plasma. Physics of Plasmas, 2018, 25, .	1.9	30
51	Overview of the TCV tokamak experimental programme. Nuclear Fusion, 2022, 62, 042018.	3.5	30
52	Effects of sharp vorticity gradients in two-dimensional hydrodynamic turbulence. Physics of Fluids, 2007, 19, .	4.0	29
53	Vortex Statistics for Turbulence in a Container with Rigid Boundaries. Physical Review Letters, 2000, 85, 752-755.	7.8	28
54	Scaling of L-mode heat flux for ITER and COMPASS-U divertors, based on five tokamaks. Nuclear Fusion, 2020, 60, 066016.	3.5	26

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55	The influence of blobs on neutral particles in the scrape-off layer. Plasma Physics and Controlled Fusion, 2016, 58, 044010.	2.1	25
56	Statistical characterization of turbulence in the boundary plasma of EAST. Plasma Physics and Controlled Fusion, 2013, 55, 115007.	2.1	24
57	Vortex merging and spectral cascade in twoâ€dimensional flows. Physics of Fluids, 1996, 8, 2263-2265.	4.0	23
58	Overview of progress in European medium sized tokamaks towards an integrated plasma-edge/wall solution ^a. Nuclear Fusion, 2017, 57, 102014.	3.5	23
59	Multi-code analysis of scrape-off layer filament dynamics in MAST. Plasma Physics and Controlled Fusion, 2016, 58, 105002.	2.1	22
60	Overview of physics results from MAST towards ITER/DEMO and the MAST Upgrade. Nuclear Fusion, 2013, 53, 104008.	3.5	21
61	Study on the Lâ€“H transition power threshold with RF heating and lithium-wall coating on EAST. Nuclear Fusion, 2016, 56, 056013.	3.5	19
62	Preliminary analysis of alternative divertors for DEMO. Nuclear Materials and Energy, 2021, 26, 100908.	1.3	19
63	Dynamical properties of forced shear layers in an annular geometry. Journal of Fluid Mechanics, 2000, 402, 255-289.	3.4	18
64	Plasma vortices and their relation to cross-field diffusion: A laboratory study. Physical Review Letters, 1990, 64, 3023-3026.	7.8	16
65	Overview of MAST results. Nuclear Fusion, 2015, 55, 104008.	3.5	16
66	Low-to-High Confinement Transition Mediated by Turbulence Radial Wave Number Spectral Shift in a Fusion Plasma. Physical Review Letters, 2016, 116, 095002.	7.8	16
67	Overview of recent physics results from MAST. Nuclear Fusion, 2017, 57, 102007.	3.5	16
68	The effect of plasma fluctuations on parallel transport parameters in the SOL. Journal of Nuclear Materials, 2011, 415, S471-S474.	2.7	15
69	Study of the Lâ€“lâ€“H transition with a new dual gas puff imaging system in the EAST superconducting tokamak. Nuclear Fusion, 2014, 54, 013007.	3.5	15
70	Recent progress in Lâ€“H transition studies at JET: tritium, helium, hydrogen and deuterium. Nuclear Fusion, 2022, 62, 076026.	3.5	15
71	Steady-state and time-dependent modelling of parallel transport in the scrape-off layer. Plasma Physics and Controlled Fusion, 2011, 53, 065004.	2.1	14
72	Temperature dynamics and velocity scaling laws for interchange driven, warm ion plasma filaments. Plasma Physics and Controlled Fusion, 2016, 58, 044011.	2.1	14

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73	Generation of zonal flows in rotating fluids and magnetized plasmas. Physica Scripta, 2006, T122, 44-51.	2.5	13
74	Numerical scalings of the decay lengths in the scrape-off layer. Plasma Physics and Controlled Fusion, 2013, 55, 074010.	2.1	13
75	Scrape-off layer power fall-off length from turbulence simulations of ASDEX Upgrade L-mode. Plasma Physics and Controlled Fusion, 2018, 60, 085018.	2.1	13
76	Effect of âˆ‡B drift on the H-mode power threshold in upper single null plasmas with ITER-like tungsten divertor on EAST. Physics of Plasmas, 2018, 25, .	1.9	13
77	Studies of the Eulerianâ€“Lagrangian transformation in two-dimensional random flows. Journal of Fluid Mechanics, 1991, 224, 485-505.	3.4	12
78	Coherent vortical structures in two-dimensional plasma turbulence. Plasma Physics and Controlled Fusion, 1992, 34, 2065-2070.	2.1	12
79	Fast Ion Collective Thomson Scattering Diagnostic for ITER: Design Elements. Fusion Science and Technology, 2008, 53, 69-76.	1.1	12
80	A Dip Structure in the Intrinsic Toroidal Rotation Near the Edge of the Ohmic Plasmas in EAST. Plasma Science and Technology, 2011, 13, 397-404.	1.5	12
81	One-dimensional modelling of limit-cycle oscillation and H-mode power scaling. Nuclear Fusion, 2015, 55, 053029.	3.5	12
82	Statistical study of particle flux footprint widths with tungsten divertor in EAST. Plasma Physics and Controlled Fusion, 2019, 61, 045001.	2.1	12
83	Sharp vorticity gradients in two-dimensional turbulence and the energy spectrum. Theoretical and Computational Fluid Dynamics, 2010, 24, 253-258.	2.2	11
84	Radial transport in the far scrape-off layer of ASDEX Upgrade during L-mode and ELMy H-mode. Nuclear Fusion, 2013, 53, 043021.	3.5	11
85	Dynamics of seeded blobs under the influence of inelastic neutral interactions. Physics of Plasmas, 2020, 27, .	1.9	11
86	On the role of integrated computer modelling in fusion technology. Fusion Engineering and Design, 2020, 157, 111671.	1.9	11
87	Langmuir-magnetic probe measurements of ELMs and dithering cycles in the EAST tokamak. Plasma Physics and Controlled Fusion, 2014, 56, 095023.	2.1	10
88	Self-organization and coherent structures in plasmas and fluids. Physica Scripta, 1996, T63, 49-58.	2.5	9
89	On the interaction between two oppositely signed, shielded, monopolar vortices. Physics of Fluids, 1998, 10, 3099-3110.	4.0	9
90	On the origin of time-dependent behaviour in a barotropically unstable shear layer. Nonlinear Processes in Geophysics, 2003, 10, 289-302.	1.3	9

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91	The influence of the edge density fluctuations on electron cyclotron wave beam propagation in tokamaks. Journal of Physics: Conference Series, 2010, 260, 012002.	0.4	9
92	Observation of Blobs and Holes in the Boundary Plasma of EAST Tokamak. Plasma Science and Technology, 2011, 13, 410-414.	1.5	9
93	The Eulerian-Lagrangian transformation in two-dimensional random flows. Journal of Atmospheric and Solar-Terrestrial Physics, 1995, 57, 215-223.	0.9	8
94	Dipolar vortices in two-dimensional flows. Mathematics and Computers in Simulation, 1996, 40, 207-221.	4.4	8
95	Synthetic edge and scrape-off layer diagnosticsâ€"a bridge between experiments and theory. Nuclear Fusion, 2019, 59, 086059.	3.5	8
96	Edge turbulence in ISTTOK: a multi-code fluid validation. Plasma Physics and Controlled Fusion, 2021, 63, 055013.	2.1	8
97	Electrostatic fluctuations and turbulent plasma transport in low-Î²plasmas. Physica Scripta, 1995, 51, 632-637.	2.5	7
98	Gyrofluid potential vorticity equation and turbulent equipartion states. Plasma Physics and Controlled Fusion, 2015, 57, 054016.	2.1	7
99	Experimental Evidence for Mode Selection in Turbulent Plasma Transport. Europhysics Letters, 1994, 27, 209-214.	2.0	6
100	Up-gradient transport in a probabilistic transport model. Physics of Plasmas, 2005, 12, 084501.	1.9	6
101	Study of power width scaling in scrape-off layer with 2D electrostatic turbulence code based on EAST L-mode discharges. Physics of Plasmas, 2019, 26, 042509.	1.9	6
102	Dynamics of Vortex Interactions in Two-Dimensional Flows. Physica Scripta, 2001, T98, 29.	2.5	5
103	Dependence of upstream SOL density shoulder on divertor neutral pressure observed in L-mode and H-mode plasmas in the EAST superconducting tokamak. Nuclear Fusion, 2021, 61, 076018.	3.5	5
104	Self-organization in circular shear layers. Physica Scripta, 1996, T67, 33-37.	2.5	4
105	Numerical investigation of Scrape Off Layer anomalous particle transport for MAST parameters. Journal of Nuclear Materials, 2013, 438, S530-S535.	2.7	4
106	Vortex Dipoles Colliding with Curved Walls. NATO ASI Series Series B: Physics, 1993, , 51-54.	0.2	4
107	Progress in Edge Plasma Transport Modeling on JET. Contributions To Plasma Physics, 2008, 48, 190-195.	1.1	3
108	COMPARISON BETWEEN 2D TURBULENCE MODEL ESEL AND EXPERIMENTAL DATA FROM AUG AND COMPASS TOKAMAKS. Acta Polytechnica, 2015, 55, 128-135.	0.6	3

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109	EÃ—B mean flows in finite ion temperature plasmas. Physics of Plasmas, 2017, 24, 062309.	1.9	2
110	Influence of injection parameters on fueling efficiency of supersonic molecular beam injection into turbulent fusion plasmas. Physics of Plasmas, 2020, 27, .	1.9	2
111	Comparison of dynamical features between the fast H-L and the H-I-L transition for EAST RF-heated plasmas. Physica Scripta, 2022, 97, 015601.	2.5	2
112	Conservation of currents in reduced full-F electromagnetic kinetic and fluid models. Plasma Physics and Controlled Fusion, 2022, 64, 054005.	2.1	2
113	Simulations of scrape-off layer power width for EAST H-mode plasma and ITER 15MA baseline scenario by 2D electrostatic turbulence code. Nuclear Fusion, 0, , .	3.5	2
114	An accurate and efficient spectral method for studies of the dynamical properties of forced, circular shear layers. Applied Numerical Mathematics, 2000, 33, 175-181.	2.1	1
115	Thermomechanical analysis of insulated subsea flowlines. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2004, 218, 77-91.	0.5	1
116	Profiles and Fluctuations in Edge and SOL Turbulence. Contributions To Plasma Physics, 2012, 52, 391-400.	1.1	1
117	A new model of the Lâ€“H transition and H-mode power threshold. Plasma Science and Technology, 2018, 20, 094003.	1.5	1
118	Coherent structures in plasmas and fluids. AIP Conference Proceedings, 1995, , .	0.4	0
119	Electric Probe Measurements of the Poloidal Velocity in the Scrape-Off Layer of ASDEX Upgrade. Contributions To Plasma Physics, 2014, 54, 273-278.	1.1	0
120	Lâ€“H power threshold studies with tungsten/carbon divertor on the EAST tokamak. Radiation Effects and Defects in Solids, 2016, 171, 359-373.	1.2	0
121	Sharp vorticity gradients in two-dimensional turbulence and the energy spectrum. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 269-274.	0.2	0