

Carsten Killer

List of Publications by Year in descending order

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69
papers

1,289
citations

331670

21
h-index

414414

32
g-index

70
all docs

70
docs citations

70
times ranked

806
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of first Wendelstein 7-X high-performance operation. Nuclear Fusion, 2019, 59, 112004.	3.5	165
2	Performance of Wendelstein 7-X stellarator plasmas during the first divertor operation phase. Physics of Plasmas, 2019, 26, .	1.9	83
3	Demonstration of reduced neoclassical energy transport in Wendelstein 7-X. Nature, 2021, 596, 221-226.	27.8	69
4	Phase Separation of Binary Charged Particle Systems with Small Size Disparities using a Dusty Plasma. Physical Review Letters, 2016, 116, 115002.	7.8	53
5	Observation of anomalous impurity transport during low-density experiments in W7-X with laser blow-off injections of iron. Nuclear Fusion, 2019, 59, 046009.	3.5	38
6	Spatio-temporal evolution of the dust particle size distribution in dusty argon rf plasmas. Plasma Sources Science and Technology, 2015, 24, 025029.	3.1	35
7	Drift effects on W7-X divertor heat and particle fluxes. Plasma Physics and Controlled Fusion, 2019, 61, 125001.	2.1	35
8	First divertor physics studies in Wendelstein 7-X. Nuclear Fusion, 2019, 59, 096014.	3.5	34
9	First Observation of a Stable Highly Dissipative Divertor Plasma Regime on the Wendelstein 7-X Stellarator. Physical Review Letters, 2019, 123, 025002.	7.8	33
10	Observation of $\hat{\omega}$ mode electron heating in dusty argon radio frequency discharges. Physics of Plasmas, 2013, 20, .	1.9	32
11	Diagnostics and characterization of nanodust and nanodusty plasmas. European Physical Journal D, 2018, 72, 1.	1.3	32
12	Characterization of the W7-X scrape-off layer using reciprocating probes. Nuclear Fusion, 2019, 59, 086013.	3.5	32
13	Understanding detachment of the W7-X island divertor. Nuclear Fusion, 2021, 61, 086012.	3.5	29
14	Design, capabilities, and first results of the new laser blow-off system on Wendelstein 7-X. Review of Scientific Instruments, 2018, 89, 073505.	1.3	28
15	Prospects of X-ray imaging spectrometers for impurity transport: Recent results from the stellarator Wendelstein 7-X (invited). Review of Scientific Instruments, 2018, 89, 10G101.	1.3	27
16	Ion temperature clamping in Wendelstein 7-X electron cyclotron heated plasmas. Nuclear Fusion, 2021, 61, 116072.	3.5	27
17	Effects of toroidal plasma current on divertor power depositions on Wendelstein 7-X. Nuclear Fusion, 2019, 59, 106015.	3.5	26
18	Investigation of turbulence rotation and radial electric field in the island divertor and plasma edge at W7-X. Plasma Physics and Controlled Fusion, 2019, 61, 054003.	2.1	25

#	ARTICLE	IF	CITATIONS
19	Overview of the results from divertor experiments with attached and detached plasmas at Wendelstein 7-X and their implications for steady-state operation. Nuclear Fusion, 2021, 61, 106003.	3.5	24
20	Experimental confirmation of efficient island divertor operation and successful neoclassical transport optimization in Wendelstein 7-X. Nuclear Fusion, 2022, 62, 042022.	3.5	24
21	Three-dimensional single particle tracking in dense dust clouds by stereoscopy of fluorescent particles. Physics of Plasmas, 2012, 19, .	1.9	23
22	Measurement of the plasma edge profiles using the combined probe on W7-X. Nuclear Fusion, 2017, 57, 126020.	3.5	22
23	Vertically elongated three-dimensional Yukawa clusters in dusty plasmas. Physical Review B, 2011, 84, .	3.2	18
24	Computer tomography of large dust clouds in complex plasmas. Review of Scientific Instruments, 2014, 85, 103711.	1.3	18
25	Stereoscopic imaging of dusty plasmas. Journal of Plasma Physics, 2016, 82, .	2.1	18
26	Characterization of injection and confinement improvement through impurity induced profile modifications on the Wendelstein 7-X stellarator. Physics of Plasmas, 2021, 28, .	1.9	18
27	Long-term spatio-temporal evolution of the dust distribution in dusty argon rf plasmas. Plasma Sources Science and Technology, 2016, 25, 055004.	3.1	16
28	Tuning of the rotational transform in Wendelstein 7-X. Nuclear Fusion, 2019, 59, 126004.	3.5	16
29	Plasma filaments in the scrape-off layer of Wendelstein 7-X. Plasma Physics and Controlled Fusion, 2020, 62, 085003.	2.1	16
30	Edge plasma measurements on the OP 1.2a divertor plasmas at W7-X using the combined probe. Nuclear Materials and Energy, 2019, 19, 179-183.	1.3	15
31	Nonlinear decay of high-power microwaves into trapped modes in inhomogeneous plasma. Nuclear Fusion, 0, , .	3.5	15
32	Stereoscopy of dust density waves under microgravity: Velocity distributions and phase-resolved single-particle analysis. Physics of Plasmas, 2014, 21, 033703.	1.9	14
33	Validating the ASCOT modelling of NBI fast ions in Wendelstein 7-X stellarator. Journal of Instrumentation, 2019, 14, C10012-C10012.	1.2	12
34	Multi-diagnostic analysis of plasma filaments in the island divertor. Plasma Physics and Controlled Fusion, 2020, 62, 014017.	2.1	12
35	Coherence imaging spectroscopy at Wendelstein 7-X for impurity flow measurements. Review of Scientific Instruments, 2020, 91, 013501.	1.3	12
36	Measurement of the edge ion temperature in W7-X with island divertor by a retarding field analyzer probe. Nuclear Fusion, 2019, 59, 126002.	3.5	11

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37	Effect of toroidal plasma currents on the Wendelstein 7-X Scrape-Off Layer. Plasma Physics and Controlled Fusion, 2019, 61, 125014.	2.1	11
38	Global coherence of dust density waves. Physics of Plasmas, 2014, 21, .	1.9	10
39	Characterization of injected aluminum oxide nanoparticle clouds in an rf discharge. Plasma Sources Science and Technology, 2018, 27, 025004.	3.1	10
40	The effects of magnetic topology on the scrape-off layer turbulence transport in the first divertor plasma operation of Wendelstein 7-X using a new combined probe. Nuclear Fusion, 2019, 59, 066001.	3.5	9
41	Impurity transport studies at Wendelstein 7-X by means of x-ray imaging spectrometer measurements. Plasma Physics and Controlled Fusion, 2019, 61, 014030.	2.1	9
42	Measurements of plasma parameters in the divertor island of Wendelstein 7-X through line-ratio spectroscopy on helium. Nuclear Fusion, 2020, 60, 106014.	3.5	9
43	Fast camera imaging of plasmas in Alcator C-Mod and W7-X. Nuclear Materials and Energy, 2018, 17, 269-273.	1.3	8
44	A horizontal powder injector for W7-X. Fusion Engineering and Design, 2019, 146, 1403-1407.	1.9	8
45	Impact of magnetic islands on plasma flow and turbulence in W7-X. Nuclear Fusion, 2021, 61, 096011.	3.5	8
46	Bolometer tomography on Wendelstein 7-X for study of radiation asymmetry. Nuclear Fusion, 2021, 61, 116043.	3.5	8
47	Influence of dust particles on the bulk electron density in radio frequency plasmas measured by microwave interferometry. Physics of Plasmas, 2015, 22, 123702.	1.9	7
48	Plasma impurities observed by a pulse height analysis diagnostic during the divertor campaign of the Wendelstein 7-X stellarator. Review of Scientific Instruments, 2018, 89, 10F111.	1.3	7
49	Retarding field analyzer for the wendelstein 7-X boundary plasma. Fusion Engineering and Design, 2020, 157, 111623.	1.9	7
50	Turbulent transport in the scrape-off layer of Wendelstein 7-X. Nuclear Fusion, 2021, 61, 096038.	3.5	7
51	Observations of the effects of magnetic topology on the SOL characteristics of an electromagnetic coherent mode in the first experimental campaign of W7-X. Nuclear Fusion, 2018, 58, 046002.	3.5	6
52	Design of a High Resolution Probe Head for Electromagnetic Turbulence Investigations in W7-X. IEEE Transactions on Plasma Science, 2018, 46, 1306-1311.	1.3	6
53	Reciprocating probe measurements in the test divertor operation phase of Wendelstein 7-X. Journal of Instrumentation, 2022, 17, P03018.	1.2	6
54	Oscillation Amplitudes in 3-D Dust Density Waves in Dusty Plasmas Under Microgravity Conditions. IEEE Transactions on Plasma Science, 2014, 42, 2680-2681.	1.3	5

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55	Characteristics of the SOL turbulence structure in the first experimental campaign on W7-X with limiter configuration. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	5
56	Analysis of hydrogen fueling, recycling, and confinement at Wendelstein 7-X via a single-reservoir particle balance. <i>Nuclear Fusion</i> , 2022, 62, 036023.	3.5	5
57	Magnetic configuration effects on the edge heat flux in the limiter plasma on W7-X measured using the infrared camera and the combined probe. <i>Plasma Science and Technology</i> , 2018, 20, 054003.	1.5	4
58	Operation of probe heads on the Multi-Purpose-Manipulator at W7-X in OP 1.2a. <i>Fusion Engineering and Design</i> , 2019, 146, 2353-2355.	1.9	4
59	A new multi-channel Mach probe measuring the radial ion flow velocity profile in the boundary plasma of the W7-X stellarator. <i>Review of Scientific Instruments</i> , 2019, 90, 033502.	1.3	4
60	Dynamics and dependencies of the configuration-dependent $1\text{--}2\text{ kHz}$ fluctuation in W7-X. <i>Nuclear Materials and Energy</i> , 2021, 27, 100967.	1.3	4
61	Magnetic configuration scans during divertor operation of Wendelstein 7-X. <i>Nuclear Fusion</i> , 2022, 62, 026032.	3.5	4
62	High Resolution Probe for filament transport and current density study at the edge region of W7-X. <i>Journal of Instrumentation</i> , 2019, 14, C09035-C09035.	1.2	2
63	Design and characteristics of a low-frequency magnetic probe for magnetic profile measurements at Wendelstein 7-X. <i>Review of Scientific Instruments</i> , 2020, 91, 073506.	1.3	2
64	Statistical characteristics of the SOL turbulence in the first divertor plasma operation of W7-X using a reciprocating probe. <i>Physics of Plasmas</i> , 2020, 27, 122504.	1.9	2
65	Effect of magnetic geometry on the energy partition between ions and electrons in the scrape-off layer of magnetic fusion devices. <i>Nuclear Fusion</i> , 2022, 62, 094002.	3.5	2
66	Effectiveness of local methane and hydrogen injection into the scrape-off layer of W7-X by means of the multi-purpose manipulator. <i>Fusion Engineering and Design</i> , 2021, 173, 112786.	1.9	1
67	Parametrisation of target heat flux distribution and study of transport parameters for boundary modelling in W7-X. <i>Nuclear Fusion</i> , 0, , .	3.5	1
68	Wave Crest Reconstruction of a Dust Density Wave Using Single Particle Trajectories. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 2676-2677.	1.3	0
69	Estimating the error in filament propagation measurement using a synthetic probe. <i>Plasma Physics and Controlled Fusion</i> , 0, , .	2.1	0