

Udo Häfjel

List of Publications by Year in descending order

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52
docs citations

52
times ranked

766
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of first Wendelstein 7-X high-performance operation. Nuclear Fusion, 2019, 59, 112004.	3.5	165
2	Major results from the first plasma campaign of the Wendelstein 7-X stellarator. Nuclear Fusion, 2017, 57, 102020.	3.5	128
3	Magnetic configuration effects on the Wendelstein 7-X stellarator. Nature Physics, 2018, 14, 855-860.	16.7	110
4	Performance of Wendelstein 7-X stellarator plasmas during the first divertor operation phase. Physics of Plasmas, 2019, 26, .	1.9	83
5	Demonstration of reduced neoclassical energy transport in Wendelstein 7-X. Nature, 2021, 596, 221-226.	27.8	69
6	The Thomson scattering diagnostic at Wendelstein 7-X and its performance in the first operation phase. Journal of Instrumentation, 2017, 12, P10004-P10004.	1.2	52
7	High-performance plasmas after pellet injections in Wendelstein 7-X. Nuclear Fusion, 2020, 60, 066011.	3.5	48
8	Core radial electric field and transport in Wendelstein 7-X plasmas. Physics of Plasmas, 2018, 25, .	1.9	47
9	Overview of diagnostic performance and results for the first operation phase in Wendelstein 7-X (invited). Review of Scientific Instruments, 2016, 87, 11D304.	1.3	45
10	Electron-cyclotron-resonance heating in Wendelstein 7-X: A versatile heating and current-drive method and a tool for in-depth physics studies. Plasma Physics and Controlled Fusion, 2019, 61, 014037.	2.1	43
11	Final integration, commissioning and start of the Wendelstein 7-X stellarator operation. Nuclear Fusion, 2017, 57, 116015.	3.5	33
12	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
13	Pellet fueling experiments in Wendelstein 7-X. Plasma Physics and Controlled Fusion, 2019, 61, 095012.	2.1	27
14	Impact of boronizations on impurity sources and performance in Wendelstein 7-X. Nuclear Fusion, 2020, 60, 086007.	3.5	26
15	Experimental confirmation of efficient island divertor operation and successful neoclassical transport optimization in Wendelstein 7-X. Nuclear Fusion, 2022, 62, 042022.	3.5	24
16	Advanced electron cyclotron heating and current drive experiments on the stellarator Wendelstein 7-X. EPJ Web of Conferences, 2017, 157, 02008.	0.3	23
17	Collective Thomson scattering diagnostic at Wendelstein 7-X. Review of Scientific Instruments, 2019, 90, 013503.	1.3	23
18	Measurements of visible bremsstrahlung and automatic Bayesian inference of the effective plasma charge $\langle Z_{\text{eff}} \rangle$ at W7-X. Journal of Instrumentation, 2019, 14, C10003-C10003.	1.2	21

#	ARTICLE	IF	CITATIONS
19	Bayesian modeling of microwave radiometer calibration on the example of the Wendelstein 7-X electron cyclotron emission diagnostic. <i>Review of Scientific Instruments</i> , 2019, 90, 043502.	1.3	21
20	ECE Diagnostic for the initial Operation of Wendelstein 7-X. <i>EPJ Web of Conferences</i> , 2019, 203, 03007.	0.3	20
21	Characterization of injection and confinement improvement through impurity induced profile modifications on the Wendelstein 7-X stellarator. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	18
22	Stellarators Resist Turbulent Transport on the Electron Larmor Scale. <i>Physical Review Letters</i> , 2019, 122, 035002.	7.8	17
23	Enhanced energy confinement after series of pellets in Wendelstein 7-X. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 055012.	2.1	17
24	Global energy confinement in the initial limiter configuration of Wendelstein 7-X. <i>Nuclear Fusion</i> , 2018, 58, 106029.	3.5	16
25	The Langmuir probe system in the Wendelstein 7-X test divertor. <i>Review of Scientific Instruments</i> , 2020, 91, 063505.	1.3	16
26	Investigation of the neoclassical ambipolar electric field in ion-root plasmas on W7-X. <i>Nuclear Fusion</i> , 2020, 60, 036021.	3.5	16
27	Confinement in Wendelstein 7-X limiter plasmas. <i>Nuclear Fusion</i> , 2017, 57, 086010.	3.5	15
28	Validation of the BEAMS3D neutral beam deposition model on Wendelstein 7-X. <i>Nuclear Fusion</i> , 2020, 60, 076020.	3.5	15
29	Schemes of microwave heating of overdense plasmas in the stellarator TJ-K. <i>Plasma Physics and Controlled Fusion</i> , 2013, 55, 014010.	2.1	14
30	Study of radial heat transport in W7-X using the transfer entropy. <i>Nuclear Fusion</i> , 2018, 58, 076002.	3.5	14
31	Neural network approximation of Bayesian models for the inference of ion and electron temperature profiles at W7-X. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 075012.	2.1	14
32	ECCD-induced sawtooth crashes at W7-X. <i>Nuclear Fusion</i> , 2020, 60, 106021.	3.5	14
33	Measurements of the parameter dependencies of the bootstrap current in the W7-X stellarator. <i>Nuclear Fusion</i> , 2021, 61, 036024.	3.5	13
34	Proof of concept of a fast surrogate model of the VMEC code via neural networks in Wendelstein 7-X scenarios. <i>Nuclear Fusion</i> , 2021, 61, 096039.	3.5	11
35	Numerical modeling of the electron temperature crashes observed in Wendelstein 7-X stellarator experiments. <i>Nuclear Fusion</i> , 2020, 60, 076024.	3.5	10
36	Bayesian uncertainty calculation in neural network inference of ion and electron temperature profiles at W7-X. <i>Review of Scientific Instruments</i> , 2018, 89, 10K102.	1.3	9

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37	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
38	Intermittence and turbulence in fusion devices. Plasma Physics and Controlled Fusion, 2020, 62, 025011.	2.1	8
39	Investigation of mode activity in NBI-heated experiments of Wendelstein 7-X. Nuclear Fusion, 2020, 60, 112004.	3.5	8
40	Inference of the microwave absorption coefficient from stray radiation measurements in Wendelstein 7-X. Nuclear Fusion, 2017, 57, 036013.	3.5	7
41	Bayesian inference of spatially resolved $\langle i \rangle Z \langle i \rangle_{\text{eff}}$ profiles from line integrated bremsstrahlung spectra. Review of Scientific Instruments, 2021, 92, 043505.	1.3	7
42	Plasma radiation behavior approaching high-radiation scenarios in W7-X. Nuclear Fusion, 2021, 61, 126002.	3.5	5
43	High-performance ECRH at W7-X: experience and perspectives. Nuclear Fusion, 2021, 61, 106005.	3.5	4
44	Heat pulse propagation and anomalous electron heat transport measurements on the optimized stellarator W7-X. Nuclear Fusion, 2021, 61, 056001.	3.5	3
45	Neural network surrogates of Bayesian diagnostic models for fast inference of plasma parameters. Review of Scientific Instruments, 2021, 92, 033531.	1.3	3
46	Confinement degradation and plasma loss induced by strong sawtooth crashes at W7-X. Nuclear Fusion, 2021, 61, 116053.	3.5	3
47	Electron temperature profile from optically grey X3-mode of electron cyclotron emission at Wendelstein 7-X using Bayesian analysis. Plasma Physics and Controlled Fusion, 2022, 64, 055016.	2.1	3
48	Effectiveness of local methane and hydrogen injection into the scrape-off layer of W7-X by means of the multi-purpose manipulator. Fusion Engineering and Design, 2021, 173, 112786.	1.9	1
49	Flux surface identification by spatio-temporal coupling with partial mutual information analysis of electron cyclotron emission data. Plasma Physics and Controlled Fusion, 2021, 63, 015002.	2.1	0