

Udo Häfjel

List of Publications by Year in descending order

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docs citations

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766
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental confirmation of efficient island divertor operation and successful neoclassical transport optimization in Wendelstein 7-X. Nuclear Fusion, 2022, 62, 042022.	3.5	24
2	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
3	Measurements of the parameter dependencies of the bootstrap current in the W7-X stellarator. Nuclear Fusion, 2021, 61, 036024.	3.5	13
4	Heat pulse propagation and anomalous electron heat transport measurements on the optimized stellarator W7-X. Nuclear Fusion, 2021, 61, 056001.	3.5	3
5	Neural network surrogates of Bayesian diagnostic models for fast inference of plasma parameters. Review of Scientific Instruments, 2021, 92, 033531.	1.3	3
6	Bayesian inference of spatially resolved $\langle i \rangle_Z$ profiles from line integrated bremsstrahlung spectra. Review of Scientific Instruments, 2021, 92, 043505.	1.3	7
7	Demonstration of reduced neoclassical energy transport in Wendelstein 7-X. Nature, 2021, 596, 221-226.	27.8	69
8	Proof of concept of a fast surrogate model of the VMEC code via neural networks in Wendelstein 7-X scenarios. Nuclear Fusion, 2021, 61, 096039.	3.5	11
9	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
10	High-performance ECRH at W7-X: experience and perspectives. Nuclear Fusion, 2021, 61, 106005.	3.5	4
11	Confinement degradation and plasma loss induced by strong sawtooth crashes at W7-X. Nuclear Fusion, 2021, 61, 116053.	3.5	3
12	Plasma radiation behavior approaching high-radiation scenarios in W7-X. Nuclear Fusion, 2021, 61, 126002.	3.5	5
13	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
14	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
15	The Langmuir probe system in the Wendelstein 7-X test divertor. Review of Scientific Instruments, 2020, 91, 063505.	1.3	16
16	Validation of the BEAMS3D neutral beam deposition model on Wendelstein 7-X. Nuclear Fusion, 2020, 60, 076020.	3.5	15
17	Enhanced energy confinement after series of pellets in Wendelstein 7-X. Plasma Physics and Controlled Fusion, 2020, 62, 055012.	2.1	17
18	Intermittence and turbulence in fusion devices. Plasma Physics and Controlled Fusion, 2020, 62, 025011.	2.1	8

#	ARTICLE	IF	CITATIONS
19	Investigation of the neoclassical ambipolar electric field in ion-root plasmas on W7-X. Nuclear Fusion, 2020, 60, 036021.	3.5	16
20	High-performance plasmas after pellet injections in Wendelstein 7-X. Nuclear Fusion, 2020, 60, 066011.	3.5	48
21	Investigation of mode activity in NBI-heated experiments of Wendelstein 7-X. Nuclear Fusion, 2020, 60, 112004.	3.5	8
22	Numerical modeling of the electron temperature crashes observed in Wendelstein 7-X stellarator experiments. Nuclear Fusion, 2020, 60, 076024.	3.5	10
23	Impact of boronizations on impurity sources and performance in Wendelstein 7-X. Nuclear Fusion, 2020, 60, 086007.	3.5	26
24	ECCD-induced sawtooth crashes at W7-X. Nuclear Fusion, 2020, 60, 106021.	3.5	14
25	Performance of Wendelstein 7-X stellarator plasmas during the first divertor operation phase. Physics of Plasmas, 2019, 26, .	1.9	83
26	Pellet fueling experiments in Wendelstein 7-X. Plasma Physics and Controlled Fusion, 2019, 61, 095012.	2.1	27
27	Overview of first Wendelstein 7-X high-performance operation. Nuclear Fusion, 2019, 59, 112004.	3.5	165
28	Neural network approximation of Bayesian models for the inference of ion and electron temperature profiles at W7-X. Plasma Physics and Controlled Fusion, 2019, 61, 075012.	2.1	14
29	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
30	Measurements of visible bremsstrahlung and automatic Bayesian inference of the effective plasma charge $\langle i \rangle Z_{\text{eff}}$ at W7-X. Journal of Instrumentation, 2019, 14, C10003-C10003.	1.2	21
31	ECE Diagnostic for the initial Operation of Wendelstein 7-X. EPJ Web of Conferences, 2019, 203, 03007.	0.3	20
32	Bayesian modeling of microwave radiometer calibration on the example of the Wendelstein 7-X electron cyclotron emission diagnostic. Review of Scientific Instruments, 2019, 90, 043502.	1.3	21
33	Stellarators Resist Turbulent Transport on the Electron Larmor Scale. Physical Review Letters, 2019, 122, 035002.	7.8	17
34	Collective Thomson scattering diagnostic at Wendelstein 7-X. Review of Scientific Instruments, 2019, 90, 013503.	1.3	23
35	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
36	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

#	ARTICLE	IF	CITATIONS
37	Study of radial heat transport in W7-X using the transfer entropy. Nuclear Fusion, 2018, 58, 076002.	3.5	14
38	Core radial electric field and transport in Wendelstein 7-X plasmas. Physics of Plasmas, 2018, 25, .	1.9	47
39	Global energy confinement in the initial limiter configuration of Wendelstein 7-X. Nuclear Fusion, 2018, 58, 106029.	3.5	16
40	Bayesian uncertainty calculation in neural network inference of ion and electron temperature profiles at W7-X. Review of Scientific Instruments, 2018, 89, 10K102.	1.3	9
41	Magnetic configuration effects on the Wendelstein 7-X stellarator. Nature Physics, 2018, 14, 855-860.	16.7	110
42	Inference of the microwave absorption coefficient from stray radiation measurements in Wendelstein 7-X. Nuclear Fusion, 2017, 57, 036013.	3.5	7
43	Major results from the first plasma campaign of the Wendelstein 7-X stellarator. Nuclear Fusion, 2017, 57, 102020.	3.5	128
44	Final integration, commissioning and start of the Wendelstein 7-X stellarator operation. Nuclear Fusion, 2017, 57, 116015.	3.5	33
45	Confinement in Wendelstein 7-X limiter plasmas. Nuclear Fusion, 2017, 57, 086010.	3.5	15
46	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
47	Advanced electron cyclotron heating and current drive experiments on the stellarator Wendelstein 7-X. EPJ Web of Conferences, 2017, 157, 02008.	0.3	23
48	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
49	Schemes of microwave heating of overdense plasmas in the stellarator TJ-K. Plasma Physics and Controlled Fusion, 2013, 55, 014010.	2.1	14