

Wouter Tierens

List of Publications by Year in descending order

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52
papers

569
citations

759233

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713466

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all docs

52
docs citations

52
times ranked

650
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of the JET preparation for deuterium-tritium operation with the ITER like-wall. Nuclear Fusion, 2019, 59, 112021.	3.5	87
2	Making ICRF power compatible with a high-Z wall in ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2017, 59, 014022.	2.1	59
3	Overview of physics studies on ASDEX Upgrade. Nuclear Fusion, 2019, 59, 112014.	3.5	38
4	Impact of ICRF on the scrape-off layer and on plasma wall interactions: From present experiments to fusion reactor. Nuclear Materials and Energy, 2019, 18, 131-140.	1.3	34
5	Validation of the ICRF antenna coupling code RAPLICASOL against TOPICA and experiments. Nuclear Fusion, 2019, 59, 046001.	3.5	31
6	Status and future development of Heating and Current Drive for the EU DEMO. Fusion Engineering and Design, 2022, 180, 113159.	1.9	22
7	Nonlinear plasma sheath potential in the ASDEX Upgrade 3-strap antenna: a parameter scan. Nuclear Fusion, 2017, 57, 116034.	3.5	20
8	Simulation of the ion cyclotron range of frequencies slow wave and the lower hybrid resonance in 3D in RAPLICASOL. Plasma Physics and Controlled Fusion, 2019, 61, 115011.	2.1	15
9	Filament-assisted mode conversion in magnetized plasmas. Physics of Plasmas, 2020, 27, 010702.	1.9	15
10	An unconditionally stable time-domain discretization on cartesian meshes for the simulation of nonuniform magnetized cold plasma. Journal of Computational Physics, 2012, 231, 5144-5156.	3.8	14
11	Radio frequency heating induced edge plasma convection: self-consistent simulations and experiments on ASDEX Upgrade. Nuclear Fusion, 2017, 57, 116048.	3.5	14
12	Effects of outer top gas injection on ICRF coupling in ASDEX Upgrade: towards modelling of ITER gas injection. Plasma Physics and Controlled Fusion, 2017, 59, 075004.	2.1	12
13	Characterization of 3-strap antennas in ASDEX Upgrade. EPJ Web of Conferences, 2017, 157, 03005.	0.3	12
14	The importance of realistic plasma filament waveforms for the study of resonant wave-filament interactions in tokamak edge plasmas. Physics of Plasmas, 2020, 27, .	1.9	12
15	3-D Discrete Dispersion Relation, Numerical Stability, and Accuracy of the Hybrid FDTD Model for Cold Magnetized Toroidal Plasma. IEEE Transactions on Antennas and Propagation, 2014, 62, 6307-6316.	5.1	11
16	Numerical solutions of Maxwell's equations in 3D in frequency domain with linear sheath boundary conditions. Physics of Plasmas, 2019, 26, 083501.	1.9	11
17	Development of pre-conceptual ITER-type ICRF antenna design for DEMO. Nuclear Fusion, 2021, 61, 046039.	3.5	11
18	Slab-geometry surface waves on steep gradients and the origin of related numerical issues in a variety of ICRF codes. Journal of Plasma Physics, 2021, 87, .	2.1	11

#	ARTICLE	IF	CITATIONS
19	Recent progress in modeling ICRF-edge plasma interactions with application to ASDEX Upgrade. Nuclear Fusion, 0, , .	3.5	11
20	Metallic impurity content behavior during ICRH-heated L-mode discharges in EAST. Nuclear Fusion, 2020, 60, 126003.	3.5	10
21	SOL RF physics modelling in Europe, in support of ICRF experiments. EPJ Web of Conferences, 2017, 157, 01001.	0.3	9
22	Perfectly Matched Layers for time-harmonic transverse electric wave propagation in cylindrical and toroidal gyrotropic media. Journal of Computational Physics, 2019, 389, 94-110.	3.8	9
23	Interaction between filaments and ICRF in the plasma edge. Nuclear Materials and Energy, 2021, 26, 100941.	1.3	9
24	BOR-FDTD subgridding based on finite element principles. Journal of Computational Physics, 2011, 230, 4519-4535.	3.8	8
25	Redirection of radio-frequency power flow by filaments. Nuclear Fusion, 2020, 60, 036010.	3.5	8
26	ICRF coupling in ASDEX upgrade magnetically perturbed 3D plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 125019.	2.1	7
27	Validation of high-fidelity ion cyclotron range of frequencies antenna coupling simulations in full 3D geometry against experiments in the ASDEX Upgrade tokamak. Plasma Physics and Controlled Fusion, 2020, 62, 125021.	2.1	7
28	Resonant wave-filament interactions as a loss mechanism for HHFW heating and current drive. Plasma Physics and Controlled Fusion, 2022, 64, 035001.	2.1	7
29	3-Dimensional density profiles in edge plasma simulations for ICRF heating. EPJ Web of Conferences, 2017, 157, 03053.	0.3	6
30	DEMO ion cyclotron heating: Status of ITER-type antenna design. Fusion Engineering and Design, 2021, 165, 112269.	1.9	6
31	On the origin of high harmonic fast wave edge losses in NSTX. Nuclear Fusion, 2022, 62, 096011.	3.5	5
32	Finite-temperature corrections to the time-domain equations of motion for perpendicular propagation in nonuniform magnetized plasmas. Physics of Plasmas, 2012, 19, .	1.9	4
33	Implicit Local Refinement for Evanescent Layers Combined With Classical FDTD. IEEE Microwave and Wireless Components Letters, 2013, 23, 225-227.	3.2	4
34	Recent improvements to the ICRF antenna coupling code "RAPLICASOL". AIP Conference Proceedings, 2020, , .	0.4	4
35	Plasma edge modelling with ICRF coupling. EPJ Web of Conferences, 2017, 157, 03066.	0.3	3
36	ICRH coupling optimization and impurity behavior in EAST and WEST. AIP Conference Proceedings, 2020, , .	0.4	3

#	ARTICLE	IF	CITATIONS
37	Scattering of ion cyclotron range of frequency waves by filaments and ELMs. Nuclear Fusion, 2020, 60, 096001.	3.5	3
38	Higher-order hybrid implicit/explicit FDTD time-stepping. Journal of Computational Physics, 2016, 327, 643-652.	3.8	2
39	Sequential modelling of ICRF wave near RF fields and asymptotic RF sheaths description for AUG ICRF antennas. EPJ Web of Conferences, 2017, 157, 03020.	0.3	2
40	Unification of Leapfrog and Crank–Nicolson Finite Difference Time Domain Methods. SIAM Journal of Scientific Computing, 2018, 40, A306-A330.	2.8	2
41	Explicit and provably stable spatiotemporal FDTD refinement. Journal of Computational Physics, 2018, 375, 901-917.	3.8	2
42	Improved operating space of the ICRF system in ASDEX upgrade. AIP Conference Proceedings, 2020, , .	0.4	2
43	3D RAPLICASOL model of simultaneous ICRF FW and SW propagation in ASDEX upgrade conditions. AIP Conference Proceedings, 2020, , .	0.4	2
44	Stable time-domain differential equations which reproduce the warm plasma dielectric tensor. , 2014, , .		1
45	Recent progress on improving ICRF coupling and reducing RF-specific impurities in ASDEX Upgrade. EPJ Web of Conferences, 2017, 157, 02013.	0.3	1
46	Overview of recent ICRF studies and RF-related wave-field measurements on ASDEX upgrade. AIP Conference Proceedings, 2020, , .	0.4	1
47	Edge ICRF simulations in 3D geometry: From MHD equilibrium to coupling determination. AIP Conference Proceedings, 2020, , .	0.4	1
48	Influence of ELMs on ICRF wave scattering. AIP Conference Proceedings, 2020, , .	0.4	1
49	A Novel Cylindrical Probe for Measuring the Ion Temperature in Magnetized Plasmas. Contributions To Plasma Physics, 2010, 50, 841-846.	1.1	0
50	Time-domain formulation of cold plasma based on mass-lumped finite elements. , 2011, , .		0
51	A new approach to BOR-FDTD Subgridding. , 2011, , .		0
52	A time-domain discretisation of Maxwell's equations in nontrivial media using collocated fields. , 2012, , .		0