

Andrei Kukushkin

List of Publications by Year in descending order

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Version: 2024-02-01

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218677

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93

docs citations

93

times ranked

2634

citing authors

#	ARTICLE	IF	CITATIONS
1	Fluxes in DEMO-FNS Fuel Cycle Systems with Allowance for Injection of D and T Pellets. Plasma Physics Reports, 2022, 48, 205-219.	0.9	1
2	Modeling the vapor shielding of a liquid lithium divertor target using SOLPS 4.3 code. Nuclear Fusion, 2021, 61, 034001.	3.5	11
3	Selection of Fuel Isotope Composition in Heating Injectors of the FNS-ST Compact Fusion Neutron Source. Applied Sciences (Switzerland), 2021, 11, 7565.	2.5	3
4	Concept development and candidate technologies selection for the DEMO-FNS fuel cycle systems. Nuclear Fusion, 2021, 61, 116062.	3.5	5
5	Performance of the Conventional Divertor in TRT. Plasma Physics Reports, 2021, 47, 1238-1244.	0.9	6
6	Architecture of Fuel Systems of Hybrid Facility DEMO-FNS and Algorithms for Calculation of Fuel Flows in the FC-FNS Model. Fusion Science and Technology, 2020, 76, 503-512.	1.1	7
7	On the Edge of Magnetic Fusion Devices. Springer Series in Plasma Science and Technology, 2020, , .	0.2	13
8	Evaluation of fuelling requirements for core density and divertor heat load control in non-stationary phases of the ITER DT 15 MA baseline scenario. Nuclear Fusion, 2020, 60, 066015.	3.5	11
9	Evaluating Mineral Phosphorus Fluxes in Eutrophic Waters of the Northwestern Black Sea. Water Resources, 2020, 47, 137-146.	0.9	0
10	Influence of Cross-Field Transport in a Divertor on Seeded Impurity Radiation and Divertor Plasma Detachment. Plasma Physics Reports, 2020, 46, 587-596.	0.9	3
11	Shielding of liquid metal targets in plasma of linear devices. Physics of Plasmas, 2020, 27, .	1.9	6
12	SOLPS-ITER modelling of ITER edge plasma with drifts and currents. Nuclear Fusion, 2020, 60, 046019.	3.5	59
13	Simulation of Fuel Flows in Injection Systems of Demo-FNS Hybrid Facility Involving Coupled Modeling of the Core and Divertor Plasmas. Physics of Atomic Nuclei, 2020, 83, 1101-1115.	0.4	3
14	Atomic Physics Relevant to Fusion Plasmas. Springer Series in Plasma Science and Technology, 2020, , 13-47.	0.2	0
15	Physics of Some Edge Plasma Phenomena. Springer Series in Plasma Science and Technology, 2020, , 229-257.	0.2	0
16	Computational Modeling of the Edge Plasma Transport Phenomena. Springer Series in Plasma Science and Technology, 2020, , 201-227.	0.2	0
17	Effects of Large-scale Atmospheric Oscillations on Hydrometeorological Conditions in the Danube River Basin in Winter. Russian Meteorology and Hydrology, 2020, 45, 630-638.	1.3	0
18	Assessment of Applicability of Satellite-Derived Ocean Color Data for Studying Variability of Total Suspended Matter in the Surface Layer of the Deep Part of the Black Sea. Physical Oceanography, 2020, 27, .	0.9	1

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19	On the role of hydrogen radiation absorption in divertor plasma detachment. Nuclear Fusion, 2019, 59, 106025.	3.5	16
20	Integrated modelling of core and divertor plasmas for the DEMO Fusion Neutron Source hybrid facility. Nuclear Fusion, 2019, 59, 096053.	3.5	11
21	Physics basis for the first ITER tungsten divertor. Nuclear Materials and Energy, 2019, 20, 100696.	1.3	307
22	Spontaneous Break of upâ€“down Symmetry in a Symmetric Double-Null Divertor Configuration. Plasma Physics Reports, 2019, 45, 637-641.	0.9	3
23	Bifurcations and oscillations in divertor plasma. Plasma Physics and Controlled Fusion, 2019, 61, 074001.	2.1	10
24	WallDYN simulations of material migration and fuel retention in ITER low power H plasmas and high power neon-seeded DT plasmas. Nuclear Materials and Energy, 2019, 20, 100674.	1.3	14
25	Integration of Thomson scattering and laser-induced fluorescence in ITER divertor. Nuclear Fusion, 2019, 59, 086052.	3.5	10
26	SOLPS4.3 Modeling of Lithium Transport and Noncoronal Radiation in the T-15 Tokamak with Lithium Emitterâˆ“Collector Scheme in Use. Plasma Physics Reports, 2018, 44, 641-651.	0.9	12
27	Sediment Flux of Particulate Organic Phosphorus in the Open Black Sea. Oceanology, 2018, 58, 240-249.	1.2	2
28	Main chamber wall plasma loads in JET-ITER-like wall at high radiated fraction. Nuclear Materials and Energy, 2017, 12, 234-240.	1.3	7
29	Physics of ultimate detachment of a tokamak divertor plasma. Journal of Plasma Physics, 2017, 83, .	2.1	115
30	Effect of wall light reflection in ITER diagnostics. Nuclear Fusion, 2017, 57, 116061.	3.5	12
31	ITER divertor plasma response to time-dependent impurity injection. Nuclear Materials and Energy, 2017, 12, 1100-1105.	1.3	23
32	On detachment asymmetry and stability. Physics of Plasmas, 2017, 24, .	1.9	24
33	Ion orbit modelling of ELM heat loads on ITER divertor vertical targets. Nuclear Materials and Energy, 2017, 12, 75-83.	1.3	29
34	Modelling of lithium transport and its influence on the edge plasma parameters in T-15MD tokamak. Journal of Physics: Conference Series, 2017, 941, 012025.	0.4	0
35	Preliminary results of divertor modelling for DEMO-FNS reactor. Journal of Physics: Conference Series, 2017, 907, 012012.	0.4	5
36	Divertor plasma detachment. Physics of Plasmas, 2016, 23, .	1.9	126

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37	Impurity-induced divertor plasma oscillations. Physics of Plasmas, 2016, 23, .	1.9	22
38	The Role of "Momentum Removal" in Divertor Detachment. Contributions To Plasma Physics, 2016, 56, 711-716.	1.1	6
39	First results on modeling of ITER infrared images. Physica Scripta, 2016, T167, 014047.	2.5	7
40	Synthetic H-Alpha Diagnostics for ITER: Inverse Problems and Error Estimations for Strong Non-Maxwellian Effects and Intense Divertor Stray Light. Fusion Science and Technology, 2016, 69, 628-642.	1.1	24
41	Method for reconstructing the monthly mean water transparencies for the northwestern part of the Black Sea as an example. Atmospheric and Oceanic Optics, 2016, 29, 457-464.	1.3	7
42	Characteristics of divertor detachment for ITER conditions. Journal of Nuclear Materials, 2015, 463, 586-590.	2.7	18
43	Ray tracing analysis of stray light for charge exchange recombination spectroscopy on ITER. Plasma Physics and Controlled Fusion, 2015, 57, 045009.	2.1	10
44	MHD stability of the ITER pedestal and SOL plasma and its influence on the heat flux width. Journal of Nuclear Materials, 2015, 463, 401-405.	2.7	22
45	Impurity seeding in ITER DT plasmas in a carbon-free environment. Journal of Nuclear Materials, 2015, 463, 591-595.	2.7	74
46	Asymmetry of the Balmer-alpha line shape and recovery of the effective hydrogen temperature in the tokamak scrape-off layer. Plasma Physics Reports, 2015, 41, 103-111.	0.9	8
47	The new SOLPS-ITER code package. Journal of Nuclear Materials, 2015, 463, 480-484.	2.7	304
48	Parameterization of Balmer-alpha asymmetric line shape in tokamak SOL plasmas. Journal of Physics: Conference Series, 2014, 548, 012012.	0.4	7
49	Divertor stray light analysis in JET-ILW and implications for the H-Î± diagnostic in ITER. AIP Conference Proceedings, 2014, , .	0.4	7
50	Status of the ITER full-tungsten divertor shaping and heat load distribution analysis. Physica Scripta, 2014, T159, 014002.	2.5	43
51	A full tungsten divertor for ITER: Physics issues and design status. Journal of Nuclear Materials, 2013, 438, S48-S56.	2.7	618
52	EDGE2D-EIRENE modelling of divertor detachment in JET high triangularity L-mode plasmas in carbon and Be/W environment. Journal of Nuclear Materials, 2013, 438, S638-S642.	2.7	9
53	ITER tungsten divertor design development and qualification program. Fusion Engineering and Design, 2013, 88, 1798-1801.	1.9	178
54	Variability of suspended organic matter in the northwestern Black Sea. Oceanology, 2013, 53, 554-569.	1.2	3

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55	Effects of the distribution of hydrological and hydrobiological parameters on the structure of transparency field in the upper layer of the Black Sea pelagic zone. Russian Meteorology and Hydrology, 2013, 38, 486-495.	1.3	3
56	Consequences of a reduction of the upstream power SOL width in ITER. Journal of Nuclear Materials, 2013, 438, S203-S207.	2.7	105
57	Design assessment of tungsten as an upper panel plasma facing material in ITER. Journal of Nuclear Materials, 2013, 438, S580-S584.	2.7	26
58	In-vessel dust and tritium control strategy in ITER. Journal of Nuclear Materials, 2013, 438, S996-S1000.	2.7	72
59	Modeling of divertor particle and heat loads during application of resonant magnetic perturbation fields for ELM control in ITER. Journal of Nuclear Materials, 2013, 438, S194-S198.	2.7	25
60	ITER divertor performance in the low-activation phase. Nuclear Fusion, 2013, 53, 123025.	3.5	7
61	Impact of potential narrow SOL heat flux on H-mode access in ITER. Nuclear Fusion, 2013, 53, 123024.	3.5	10
62	The ITER divertor Thomson scattering system: engineering and advanced hardware solutions. Journal of Instrumentation, 2012, 7, C02063-C02063.	1.2	15
63	Hydrogen lines in the infrared region and spectral background for the thomson scattering diagnostics of the iter divertor plasma. Plasma Physics Reports, 2012, 38, 138-148.	0.9	6
64	Feasibility study of an actively cooled tungsten divertor in Tore Supra for ITER technology testing. Fusion Engineering and Design, 2011, 86, 684-688.	1.9	66
65	Radiative power loading in the ITER divertor. Fusion Engineering and Design, 2011, 86, 2954-2964.	1.9	14
66	Physics requirements on fuel throughput in ITER. Journal of Nuclear Materials, 2011, 415, S497-S500.	2.7	48
67	Modelling of beryllium erosion"redeposition on ITER first wall panels. Journal of Nuclear Materials, 2011, 415, S165-S169.	2.7	57
68	Design assessment of ITER port plug plasma facing material options. Journal of Nuclear Materials, 2011, 415, S965-S968.	2.7	24
69	Physics basis and design of the ITER plasma-facing components. Journal of Nuclear Materials, 2011, 415, S957-S964.	2.7	361
70	Thomson scattering diagnostics for ITER divertor. Journal of Physics: Conference Series, 2010, 227, 012043.	0.4	5
71	Verification of the 2D Tokamak Edge Modelling Codes for Conditions of Detached Divertor Plasma. Contributions To Plasma Physics, 2010, 50, 292-298.	1.1	9
72	ITER plasma-facing components. Fusion Engineering and Design, 2010, 85, 2312-2322.	1.9	144

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73	Numerical estimates of the ITER first wall erosion due to fast neutral particles. Physica Scripta, 2009, T138, 014020.	2.5	10
74	Chapter 4: Power and particle control. Nuclear Fusion, 2007, 47, S203-S263.	3.5	891
75	Plasmaâ€œsurface interaction, scrape-off layer and divertor physics: implications for ITER. Nuclear Fusion, 2007, 47, 1189-1205.	3.5	156
76	Critical Evaluation of the Determination of the SOL Transport Mechanism from a Statistical Examination of Experimental Data. Contributions To Plasma Physics, 2006, 46, 545-550.	1.1	3
77	Radiation Absorption Effects in B2-EIRENE Divertor Modelling. Contributions To Plasma Physics, 2006, 46, 635-642.	1.1	57
78	Material erosion and migration in tokamaks. Plasma Physics and Controlled Fusion, 2005, 47, B303-B322.	2.1	105
79	Operating window of ITER from consistent coreâ€œpedestalâ€œSOL modelling with modified MMM transport and carbon. Plasma Physics and Controlled Fusion, 2004, 46, A257-A264.	2.1	26
80	Divertor issues on ITER and extrapolation to reactors. Fusion Engineering and Design, 2003, 65, 355-366.	1.9	45
81	Overview of physics basis for ITER. Plasma Physics and Controlled Fusion, 2003, 45, A235-A252.	2.1	59
82	Divertor modelling and extrapolation to reactor conditions. Plasma Physics and Controlled Fusion, 2002, 44, 931-943.	2.1	82
83	Self-Sustained Divertor Plasma Oscillations in the JET Tokamak. Physical Review Letters, 1999, 83, 3657-3660.	7.8	34
84	2D Modelling of the Edge Plasma in ITER. Contributions To Plasma Physics, 1998, 38, 20-25.	1.1	20
85	Implementation of Nonâ€œlocal Transport Model into 2D Fluid Code. Contributions To Plasma Physics, 1994, 34, 204-209.	1.1	13
86	Application of BGK Collision Operator for Kinetic Correction of Fluid Models. Contributions To Plasma Physics, 1994, 34, 216-220.	1.1	5
87	Feasibility of â€œGas Targetâ€œMode of Divertor Operation in Iter. Contributions To Plasma Physics, 1994, 34, 282-292.	1.1	11
88	Effect of Boundary Conditions on the Performance of Divertor Plasma. Contributions To Plasma Physics, 1992, 32, 314-319.	1.1	1
89	Removal of helium during self-sustained oscillations in the diverter plasma of a tokamak. Soviet Atomic Energy, 1989, 67, 672-674.	0.1	0
90	On the Neutral Gas Localization in a Divertor Plasma. Contributions To Plasma Physics, 1988, 28, 439-442.	1.1	1

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91	Purity requirements for tokamak fuel. Soviet Atomic Energy, 1986, 61, 657-659.	0.1	0
92	Optimization of plasma parameters in a hybrid reactor-tokamak. Soviet Atomic Energy, 1979, 47, 983-988.	0.1	0
93	Ballistic Model of recycling of atomic and molecular hydrogen and its application to the ITER main chamber. Plasma Physics and Controlled Fusion, 0, , .	2.1	1