Andrei Kukushkin

List of Publications by Year
in descending order

93	4,739	218677 26	95266 68
papers	citations	h-index	g-index

93	93	93	2634
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chapter 4: Power and particle control. Nuclear Fusion, 2007, 47, S203-S263.	3.5	891
2	A full tungsten divertor for ITER: Physics issues and design status. Journal of Nuclear Materials, 2013, 438, S48-S56.	2.7	618
3	Physics basis and design of the ITER plasma-facing components. Journal of Nuclear Materials, 2011, 415, S957-S964.	2.7	361
4	Physics basis for the first ITER tungsten divertor. Nuclear Materials and Energy, 2019, 20, 100696.	1.3	307
5	The new SOLPS-ITER code package. Journal of Nuclear Materials, 2015, 463, 480-484.	2.7	304
6	ITER tungsten divertor design development and qualification program. Fusion Engineering and Design, 2013, 88, 1798-1801.	1.9	178
7	Plasmaâ€“surface interaction, scrape-off layer and divertor physics: implications for ITER. Nuclear Fusion, 2007, 47, 1189-1205.	3.5	156
8	ITER plasma-facing components. Fusion Engineering and Design, 2010, 85, 2312-2322.	1.9	144
9	Divertor plasma detachment. Physics of Plasmas, 2016, 23, .	1.9	126
10	Physics of ultimate detachment of a tokamak divertor plasma. Journal of Plasma Physics, 2017, 83, .	2.1	115
11	Material erosion and migration in tokamaks. Plasma Physics and Controlled Fusion, 2005, 47, B303-B322.	2.1	105
12	Consequences of a reduction of the upstream power SOL width in ITER. Journal of Nuclear Materials, 2013, 438, S203-S207.	2.7	105
13	Divertor modelling and extrapolation to reactor conditions. Plasma Physics and Controlled Fusion, 2002, 44, 931-943.	2.1	82
14	Impurity seeding in ITER DT plasmas in a carbon-free environment. Journal of Nuclear Materials, 2015, 463, 591-595.	2.7	74
15	In-vessel dust and tritium control strategy in ITER. Journal of Nuclear Materials, 2013, 438, S996-S1000.	2.7	72
16	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
17	Overview of physics basis for ITER. Plasma Physics and Controlled Fusion, 2003, 45, A235-A252.	2.1	59
18	SOLPS-ITER modelling of ITER edge plasma with drifts and currents. Nuclear Fusion, 2020, 60, 046019.	3.5	59

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19	Radiation Absorption Effects in B2-EIRENE Divertor Modelling. Contributions To Plasma Physics, 2006, 46, 635-642.	1.1	57
20	Modelling of beryllium erosionâ€“redeposition on ITER first wall panels. Journal of Nuclear Materials, 2011, 415, S165-S169.	2.7	57
21	Physics requirements on fuel throughput in ITER. Journal of Nuclear Materials, 2011, 415, S497-S500.	2.7	48
22	Divertor issues on ITER and extrapolation to reactors. Fusion Engineering and Design, 2003, 65, 355-366.	1.9	45
23	Status of the ITER full-tungsten divertor shaping and heat load distribution analysis. Physica Scripta, 2014, T159, 014002.	2.5	43
24	Self-Sustained Divertor Plasma Oscillations in the JET Tokamak. Physical Review Letters, 1999, 83, 3657-3660.	7.8	34
25	Ion orbit modelling of ELM heat loads on ITER divertor vertical targets. Nuclear Materials and Energy, 2017, 12, 75-83.	1.3	29
26	Operating window of ITER from consistent coreâ€“pedestalâ€“SOL modelling with modified MMM transport and carbon. Plasma Physics and Controlled Fusion, 2004, 46, A257-A264.	2.1	26
27	Design assessment of tungsten as an upper panel plasma facing material in ITER. Journal of Nuclear Materials, 2013, 438, S580-S584.	2.7	26
28	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
29	Design assessment of ITER port plug plasma facing material options. Journal of Nuclear Materials, 2011, 415, S965-S968.	2.7	24
30	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
31	On detachment asymmetry and stability. Physics of Plasmas, 2017, 24, .	1.9	24
32	ITER divertor plasma response to time-dependent impurity injection. Nuclear Materials and Energy, 2017, 12, 1100-1105.	1.3	23
33	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
34	Impurity-induced divertor plasma oscillations. Physics of Plasmas, 2016, 23, .	1.9	22
35	2D Modelling of the Edge Plasma in ITER. Contributions To Plasma Physics, 1998, 38, 20-25.	1.1	20
36	Characteristics of divertor detachment for ITER conditions. Journal of Nuclear Materials, 2015, 463, 586-590.	2.7	18

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37	On the role of hydrogen radiation absorption in divertor plasma detachment. Nuclear Fusion, 2019, 59, 106025.	3.5	16
38	The ITER divertor Thomson scattering system: engineering and advanced hardware solutions. Journal of Instrumentation, 2012, 7, C02063-C02063.	1.2	15
39	Radiative power loading in the ITER divertor. Fusion Engineering and Design, 2011, 86, 2954-2964.	1.9	14
40	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
41	Implementation of Nonâ€•local Transport Model into 2D Fluid Code. Contributions To Plasma Physics, 1994, 34, 204-209.	1.1	13
42	On the Edge of Magnetic Fusion Devices. Springer Series in Plasma Science and Technology, 2020, , .	0.2	13
43	Effect of wall light reflection in ITER diagnostics. Nuclear Fusion, 2017, 57, 116061.	3.5	12
44	SOLPS4.3 Modeling of Lithium Transport and Noncoronal Radiation in the T-15 Tokamak with Lithium Emitterâ"Collector Scheme in Use. Plasma Physics Reports, 2018, 44, 641-651.	0.9	12
45	Feasibility of â€œGas Targetâ€•Mode of Divertor Operation in Iter. Contributions To Plasma Physics, 1994, 34, 282-292.	1.1	11
46	Integrated modelling of core and divertor plasmas for the DEMO Fusion Neutron Source hybrid facility. Nuclear Fusion, 2019, 59, 096053.	3.5	11
47	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
48	Modeling the vapor shielding of a liquid lithium divertor target using SOLPS 4.3 code. Nuclear Fusion, 2021, 61, 034001.	3.5	11
49	Numerical estimates of the ITER first wall erosion due to fast neutral particles. Physica Scripta, 2009, T138, 014020.	2.5	10
50	Impact of potential narrow SOL heat flux on H-mode access in ITER. Nuclear Fusion, 2013, 53, 123024.	3.5	10
51	Ray tracing analysis of stray light for charge exchange recombination spectroscopy on ITER. Plasma Physics and Controlled Fusion, 2015, 57, 045009.	2.1	10
52	Bifurcations and oscillations in divertor plasma. Plasma Physics and Controlled Fusion, 2019, 61, 074001.	2.1	10
53	Integration of Thomson scattering and laser-induced fluorescence in ITER divertor. Nuclear Fusion, 2019, 59, 086052.	3.5	10
54	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

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55	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
56	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
57	ITER divertor performance in the low-activation phase. Nuclear Fusion, 2013, 53, 123025.	3.5	7
58	Parameterization of Balmer-alpha asymmetric line shape in tokamak SOL plasmas. Journal of Physics: Conference Series, 2014, 548, 012012.	0.4	7
59	Divertor stray light analysis in JET-ILW and implications for the H-Î± diagnostic in ITER. AIP Conference Proceedings, 2014, , .	0.4	7
60	First results on modeling of ITER infrared images. Physica Scripta, 2016, T167, 014047.	2.5	7
61	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
62	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
63	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
64	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
65	The Role of â€œMomentum Removalâ€•in Divertor Detachment. Contributions To Plasma Physics, 2016, 56, 711-716.	1.1	6
66	Shielding of liquid metal targets in plasma of linear devices. Physics of Plasmas, 2020, 27, .	1.9	6
67	Performance of the Conventional Divertor in TRT. Plasma Physics Reports, 2021, 47, 1238-1244.	0.9	6
68	Application of BGK Collision Operator for Kinetic Correction of Fluid Models. Contributions To Plasma Physics, 1994, 34, 216-220.	1.1	5
69	Thomson scattering diagnostics for ITER divertor. Journal of Physics: Conference Series, 2010, 227, 012043.	0.4	5
70	Preliminary results of divertor modelling for DEMO-FNS reactor. Journal of Physics: Conference Series, 2017, 907, 012012.	0.4	5
71	Concept development and candidate technologies selection for the DEMOâ€“FNS fuel cycle systems. Nuclear Fusion, 2021, 61, 116062.	3.5	5
72	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

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73	Variability of suspended organic matter in the northwestern Black Sea. Oceanology, 2013, 53, 554-569.	1.2	3
74	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
75	Spontaneous Break of upâ€“down Symmetry in a Symmetric Double-Null Divertor Configuration. Plasma Physics Reports, 2019, 45, 637-641.	0.9	3
76	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
77	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
78	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
79	Sediment Flux of Particulate Organic Phosphorus in the Open Black Sea. Oceanology, 2018, 58, 240-249.	1.2	2
80	On the Neutral Gas Localization in a Divertor Plasma. Contributions To Plasma Physics, 1988, 28, 439-442.	1.1	1
81	Effect of Boundary Conditions on the Performance of Divertor Plasma. Contributions To Plasma Physics, 1992, 32, 314-319.	1.1	1
82	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
83	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
84	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
85	Optimization of plasma parameters in a hybrid reactor-tokamak. Soviet Atomic Energy, 1979, 47, 983-988.	0.1	0
86	Purity requirements for tokamak fuel. Soviet Atomic Energy, 1986, 61, 657-659.	0.1	0
87	Removal of helium during self-sustained oscillations in the diverter plasma of a tokamak. Soviet Atomic Energy, 1989, 67, 672-674.	0.1	0
88	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
89	Evaluating Mineral Phosphorus Fluxes in Eutrophic Waters of the Northwestern Black Sea. Water Resources, 2020, 47, 137-146.	0.9	0
90	Atomic Physics Relevant to Fusion Plasmas. Springer Series in Plasma Science and Technology, 2020, , 13-47.	0.2	0

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91	Physics of Some Edge Plasma Phenomena. Springer Series in Plasma Science and Technology, 2020, , 229-257.	0.2	0
92	Computational Modeling of the Edge Plasma Transport Phenomena. Springer Series in Plasma Science and Technology, 2020, , 201-227.	0.2	0
93	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