Vladimir Rozhansky

List of Publications by Year
in descending order

126 papers	3,851 citations	172457 29 h-index	138484 58 g-index
126 all docs	126 docs citations	126 times ranked	2009 citing authors

#	Article	IF	Citations
1	Chapter 2: Plasma confinement and transport. Nuclear Fusion, 2007, 47, S18-S127.	3.5	649
2	Physics basis for the first ITER tungsten divertor. Nuclear Materials and Energy, 2019, 20, 100696.	1.3	307
3	The new SOLPS-ITER code package. Journal of Nuclear Materials, 2015, 463, 480-484.	2.7	304
4	Simulation of tokamak edge plasma including self-consistent electric fields. Nuclear Fusion, 2001, 41, 387-401.	3.5	177
5	The effect of the radial electric field on the Lâ€“H transitions in tokamaks. Physics of Fluids B, 1992, 4, 1877-1888.	1.7	122
6	New B2SOLPS5.2 transport code for H-mode regimes in tokamaks. Nuclear Fusion, 2009, 49, 025007.	3.5	112
7	Screening of resonant magnetic perturbations by flows in tokamaks. Nuclear Fusion, 2012, 52, 054003.	3.5	106
8	Measurements of impurity and heat dynamics during noble gas jet-initiated fast plasma shutdown for disruption mitigation in DIII-D. Nuclear Fusion, 2005, 45, 1046-1055.	3.5	85
9	Evolution and stratification of a plasma cloud surrounding a pellet. Plasma Physics and Controlled Fusion, 1995, 37, 399-414.	2.1	81
10	Mass deposition after pellet injection into a tokamak. Plasma Physics and Controlled Fusion, 2004, 46, 575-591.	2.1	59
11	SOLPS-ITER modelling of ITER edge plasma with drifts and currents. Nuclear Fusion, 2020, 60, 046019.	3.5	59
12	Modification of the edge transport barrier by resonant magnetic perturbations. Nuclear Fusion, 2010, 50, 034005.	3.5	57
13	Characterization of the H-mode edge barrier at ASDEX Upgrade. Nuclear Fusion, 2005, 45, 856-862.	3.5	55
14	Contribution of drifts and parallel currents to divertor asymmetries. Nuclear Fusion, 2012, 52, 103017.	3.5	53
15	H mode in the TUMANâ€3 tokamak triggered by edge plasma perturbations*. Physics of Fluids B, 1993, 5, 2420-2427.	1.7	48
16	B2-solps5.0: SOL transport code with drifts and currents. Contributions To Plasma Physics, 2000, 40, 328-333.	1.1	48
17	Integrated exhaust scenarios with actively controlled ELMs. Nuclear Fusion, 2005, 45, 502-511.	3.5	46
18	Understanding transport barriers through modelling. Plasma Physics and Controlled Fusion, 2004, 46, A1-A17.	2.1	45

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19	Review of Globus-M spherical tokamak results. Nuclear Fusion, 2015, 55, 104016.	3.5	44
20	Modelling of electric fields in tokamak edge plasma and L-H transition. Nuclear Fusion, 2002, 42, 1110-1115.	3.5	40
21	Electric fields and currents in the detached regime of a tokamak. Contributions To Plasma Physics, 2018, 58, 540-546.	1.1	38
22	Transverse conductivity in a braided magnetic field. Physics of Plasmas, 1998, 5, 3901-3909.	1.9	36
23	Overview of physics results from MAST. Nuclear Fusion, 2009, 49, 104017.	3.5	36
24	The impact of a biasing radial electric field on the scrapeâ€off layer in a divertor tokamak. Physics of Plasmas, 1994, 1, 2711-2717.	1.9	33
25	Overview of physics results from MAST. Nuclear Fusion, 2011, 51, 094013.	3.5	33
26	Modelling of the Edge Plasma with Account of Self-Consistent Electric Fields. Contributions To Plasma Physics, 2006, 46, 575-585.	1.1	31
27	Impact of a pulsed supersonic deuterium gas jet on the ELM behaviour in ASDEX Upgrade. Plasma Physics and Controlled Fusion, 2005, 47, 1495-1516.	2.1	30
28	Potentials and currents in the edge tokamak plasma: simplified approach and comparison with two-dimensional modelling. Nuclear Fusion, 2003, 43, 614-621.	3.5	29
29	Penetration of supersonic gas jets into a tokamak. Nuclear Fusion, 2006, 46, 367-382.	3.5	29
30	Electric fields and currents in front of a biased electrode (flush mounted probe) and thel-Vcharacteristics of the electrode for various mechanisms of transverse conductivity. Nuclear Fusion, 1999, 39, 613-628.	3.5	28
31	Interpretation of the observed radial electric field inversion in the TUMAN-3M tokamak during MHD activity. Nuclear Fusion, 2008, 48, 075003.	3.5	28
32	Perpendicular Conductivity and Self-Consistent Electric Fields in Tokamak Edge Plasma. Contributions To Plasma Physics, 2000, 40, 423-430.	1.1	27
33	Analysis of drift effects on the tokamak power scrape-off width using SOLPS-ITER. Plasma Physics and Controlled Fusion, 2016, 58, 125012.	2.1	27
34	Comparing N versus Ne as divertor radiators in ASDEX-upgrade and ITER. Nuclear Materials and Energy, 2019, 19, 72-78.	1.3	27
35	Overview of physics results from MAST. Nuclear Fusion, 2007, 47, S658-S667.	3.5	25
36	Investigation of beamâ€“ and waveâ€“plasma interactions in spherical tokamak Globus-M. Nuclear Fusion, 2011, 51, 103019.	3.5	24

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37	MAST and the impact of low aspect ratio on tokamak physics. Plasma Physics and Controlled Fusion, 2004, 46, B477-B494.	2.1	23
38	On the ablation models of fuel pellets. Plasma Physics Reports, 2005, 31, 993-1002.	0.9	23
39	H-mode studies on TUMAN-3 and TUMAN-3M. Plasma Physics and Controlled Fusion, 1996, 38, 1103-1115.	2.1	22
40	Possible mechanism for filament motion in the SOL of a tokamak. Plasma Physics and Controlled Fusion, 2008, 50, 025008.	2.1	21
41	Overview of results obtained at the Globus-M spherical tokamak. Nuclear Fusion, 2009, 49, 104021.	3.5	21
42	Modelling of the edge plasma of MAST in the presence of resonant magnetic perturbations. Nuclear Fusion, 2011, 51, 083009.	3.5	21
43	Overview of physics results from MAST towards ITER/DEMO and the MAST Upgrade. Nuclear Fusion, 2013, 53, 104008.	3.5	21
44	Drifts, Currents, and Radial Electric Field in the Edge Plasma with Impact on Pedestal, Divertor Asymmetry and RMP Consequences. Contributions To Plasma Physics, 2014, 54, 508-516.	1.1	21
45	Impact of a new general form of friction and thermal forces on SOLPSâ€ITER modelling results. Contributions To Plasma Physics, 2018, 58, 622-628.	1.1	20
46	Speed-up of SOLPS-ITER code for tokamak edge modeling. Nuclear Fusion, 2018, 58, 126018.	3.5	20
47	Multi-machine SOLPS-ITER comparison of impurity seeded H-mode radiative divertor regimes with metal walls. Nuclear Fusion, 2021, 61, 126073.	3.5	20
48	Overview of MAST results. Nuclear Fusion, 2005, 45, S157-S167.	3.5	19
49	Radial electric field in the biasing experiments and effective conductivity in a tokamak. Physics of Plasmas, 2002, 9, 3385-3394.	1.9	18
50	Screening of resonant magnetic perturbations taking into account a self-consistent electric field. Nuclear Fusion, 2012, 52, 054011.	3.5	18
51	Ohmic H-mode studies in TUMAN-3. Plasma Physics and Controlled Fusion, 1994, 36, B289-B299.	2.1	17
52	Modeling of the edge plasma of MAST Upgrade with a Super-X divertor including drifts and an edge transport barrier. Plasma Physics and Controlled Fusion, 2013, 55, 035005.	2.1	17
53	Fusion Research in Ioffe Institute. Nuclear Fusion, 2015, 55, 104013.	3.5	17
54	Drifts, currents, and power scrape-off width in SOLPS-ITER modeling of DIII-D. Nuclear Materials and Energy, 2017, 12, 973-977.	1.3	17

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55	Structure of the classical scrape-off layer of a tokamak. Plasma Physics and Controlled Fusion, 2018, 60, 035001.	2.1	17
56	Dynamics of artificial plasma clouds in â€œSpolokhâ€•experiments: Movement pattern. Planetary and Space Science, 1983, 31, 849-858.	1.7	16
57	Overview of MAST results. Nuclear Fusion, 2015, 55, 104008.	3.5	16
58	Numerical modelling of three-dimensional plasma cloud evolution in crossed E Ã— B fields. Planetary and Space Science, 1987, 35, 835-844.	1.7	15
59	Impact of drifts on the distribution of impurities in the Tokamak plasma edge. Journal of Nuclear Materials, 2003, 313-316, 1141-1149.	2.7	15
60	Ionizationâ€"recombination processes and ablation cloud structure for a carbon pellet. Nuclear Fusion, 2004, 44, 252-259.	3.5	15
61	Modelling of radial electric field profile for different divertor configurations. Plasma Physics and Controlled Fusion, 2006, 48, 1425-1435.	2.1	15
62	Transverse Conductivity and Theory of a Probe in a Magnetized Plasma. Contributions To Plasma Physics, 1996, 36, 391-395.	1.1	14
63	Mechanisma of Transverse Conductivity andÂGeneration of Self-Consistent Electric Fields inÂStrongly Ionized Magnetized Plasma. Reviews of Plasma Physics, 2008, , 1-52.	1.0	14
64	Active control of the H-mode transition on MAST. Plasma Physics and Controlled Fusion, 2008, 50, 015005.	2.1	14
65	Neoclassical nature of the radial electric field at the low-to-high confinement transition. Physics of Plasmas, 2003, 10, 2604-2607.	1.9	13
66	Globus-M plasma edge modeling with B2SOLPS5.2 code. Plasma Physics and Controlled Fusion, 2016, 58, 085007.	2.1	13
67	SOLPS-ITER drift modelling of JET Ne and N-seeded H-modes. Nuclear Materials and Energy, 2021, 28, 101030.	1.3	13
68	Modelling and consequences of drift effects in the edge plasma of Alcator C-Mod. Journal of Nuclear Materials, 2005, 337-339, 301-304.	2.7	12
69	Modelling of the pellet cloud evolution and mass deposition with an account of âˆ‡Binduced drift. Nuclear Fusion, 2006, 46, 788-796.	3.5	12
70	Modeling of the parametric dependence of the edge toroidal rotation for MAST and ASDEX Upgrade. Journal of Nuclear Materials, 2007, 363-365, 664-668.	2.7	12
71	Comparison of measured and simulated parallel flows at the edge plasma of MAST. Plasma Physics and Controlled Fusion, 2008, 50, 115010.	2.1	11
72	Perpendicular currents and electric fields in fully and partially ionized magnetized plasma. Physics of Plasmas, 2013, 20, .	1.9	11

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73	Dynamics of artificial plasma clouds in â€œSPOLOKHâ€œ experiments : Cloud deformation. Planetary and Space Science, 1984, 32, 1045-1052.	1.7	10
74	Tokamak edge model validation and improvement. Plasma Physics and Controlled Fusion, 2002, 44, 979-984.	2.1	10
75	Contribution of <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	2.7	10
76	SOLPS-ITER drift modelling of ITER burning plasmas with narrow near-SOL heat flux channels. Nuclear Materials and Energy, 2021, 26, 100870.	1.3	10
77	Three-dimensional computer simulation of plasma cloud evolution in the ionosphere. Planetary and Space Science, 1990, 38, 1375-1386.	1.7	9
78	Analytical studies of multidimensional plasma transport in the scrape-off layer. Journal of Nuclear Materials, 1992, 196-198, 912-917.	2.7	9
79	Fast expansion of a plasma beam controlled by short-circuiting effects in a longitudinal magnetic field. Plasma Sources Science and Technology, 1996, 5, 743-747.	3.1	9
80	Dynamics of the L - H transition. Plasma Physics and Controlled Fusion, 1996, 38, 1327-1330.	2.1	9
81	Impact of EÃ—B drifts on impurity distribution in the scrape-off layer of a tokamak. Physics of Plasmas, 2000, 7, 1184-1191.	1.9	9
82	Generation of toroidal rotation by gas puff. Simulations of MAST experiments with B2SOLPS5.0. Journal of Nuclear Materials, 2005, 337-339, 291-295.	2.7	9
83	Momentum balance for impurities in SOLPS transport code. Journal of Nuclear Materials, 2015, 463, 477-479.	2.7	9
84	Improved modelling of detachment and neutral-dominated regimes using the code. Journal of Nuclear Materials, 2003, 313-316, 909-913.	2.7	8
85	Derivation of the friction and thermal force for SOLPS-ITER multicomponent plasma modeling. Physics of Plasmas, 2020, 27, .	1.9	8
86	Current structure in the scrape-off layer of a tokamak in a quiescent state. Plasma Physics and Controlled Fusion, 2021, 63, 015012.	2.1	8
87	Detached regime with highly radiating Xâ€point: Physics and modelling. Contributions To Plasma Physics, 2022, 62, .	1.1	8
88	SOLPS-ITER modeling of CFETR advanced divertor with Ar and Ne seeding. Nuclear Fusion, 2022, 62, 096010.	3.5	8
89	Conceptual design of divertor and first wall for DEMO-FNS. Nuclear Fusion, 2015, 55, 123013.	3.5	7
90	Electric fields and currents in an island divertor configuration. Journal of Nuclear Materials, 2001, 290-293, 829-835.	2.7	6

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91	Mechanisms of disruptions caused by noble gas injection into tokamak plasmas. Nuclear Fusion, 2005, 45, 882-887.	3.5	6
92	Diffusion and drift of a blob of partially ionized plasma in a magnetic field. Physics of Plasmas, 2007, 14, 052309.	1.9	6
93	Stochastization and pump-out in edge plasma caused by edge localized modes. Plasma Physics and Controlled Fusion, 2015, 57, 115007.	2.1	6
94	Modeling of ITER Edge Plasma in the Presence of Resonant Magnetic Perturbations. Contributions To Plasma Physics, 2016, 56, 587-591.	1.1	6
95	SOLPS-ITER simulations of high power exhaust for CFETR divertor with full drifts. Nuclear Fusion, 2022, 62, 026031.	3.5	6
96	Radial electric field during dynamic processes in a tokamak and L-H transitions. Plasma Physics Reports, 2001, 27, 205-210.	0.9	5
97	The Structure of the Radial Electric Field in the Vicinity of the Separatrix and the L-H Transition. Contributions To Plasma Physics, 2002, 42, 230-235.	1.1	5
98	Poloidal and toroidal flows in tokamak plasma near magnetic islands. Technical Physics Letters, 2004, 30, 538-540.	0.7	5
99	Modeling of Globus-M2 spherical tokamak edge with nitrogen seeding. Physics of Plasmas, 2018, 25, 122514.	1.9	5
100	Modeling of Globus-M connected double-null discharge. Plasma Physics and Controlled Fusion, 2019, 61, 125009.	2.1	5
101	Features of radial electric field in impurity-seeded, detached plasma in a tokamak. Physics of Plasmas, 2021, 28, 062507.	1.9	5
102	The Role OF Electric Field IN SOL Plasma. Contributions To Plasma Physics, 1994, 34, 145-150.	1.1	4
103	Understanding of impurity poloidal distribution in the edge pedestal by modelling. Nuclear Fusion, 2015, 55, 073017.	3.5	4
104	<scp>SOLPSâ€ITER EUâ€DEMO</scp> modelling with drifts and kinetic neutrals. Contributions To Plasma Physics, 2022, 62, .	1.1	4
105	Two-dimensional nonuniformly heated magnetized plasma transport in a conducting vessel. Physical Review E, 1994, 50, 3033-3040.	2.1	3
106	Drifts in the scrapeâ€off layer during hard disruptions. Contributions To Plasma Physics, 1998, 38, 124-129.	1.1	3
107	Modeling of tokamak edge plasma for discharges with neutral beam injection. Journal of Nuclear Materials, 2001, 290-293, 710-714.	2.7	3
108	Modelling of the Radial Electric Field in the ASDEX Upgrade Ohmic Shots. Contributions To Plasma Physics, 2008, 48, 73-76.	1.1	3

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109	Simulation of H-modes discharges in ASDEX-Upgrade and MAST. Journal of Nuclear Materials, 2009, 390-391, 408-411.	2.7	3
110	Simulation of edge radial electric fields in H-regimes of ASDEX-Upgrade. Journal of Nuclear Materials, 2011, 415, S593-S596.	2.7	3
111	Parallel velocity in a narrow scrape-off layer of a tokamak. Plasma Physics and Controlled Fusion, 2012, 54, 102001.	2.1	3
112	Currents structure in the scrape-off layer of a tokamak. Nuclear Materials and Energy, 2020, 25, 100840.	1.3	3
113	Theory of a Flush-Mounted Probe in a Magnetized Plasma. Contributions To Plasma Physics, 1998, 38, 19-24.	1.1	2
114	Modeling of the parametric dependence of the edge toroidal rotation. Plasma Physics Reports, 2008, 34, 730-735.	0.9	2
115	When poloidal rotation in a tokamak remains neoclassical in the presence of resonant magnetic perturbations. Plasma Physics and Controlled Fusion, 2014, 56, 125015.	2.1	2
116	The Role of an Electric Field in the Formation of a Detached Regime in Tokamak Plasma. Technical Physics Letters, 2018, 44, 255-259.	0.7	2
117	The Structure of the Radial Electric Field in the Vicinity of the Separatrix and the L-H Transition. Contributions To Plasma Physics, 2002, 42, 230-235.	1.1	2
118	The Characteristics of Electrostatic Probes in a Magnetic Field. Beitrage Aus Der Plasmaphysik, 1979, 19, 123-126.	0.1	1
119	Electric Fields and Transverse Conductivity in a SOL of a Tokamak. Contributions To Plasma Physics, 1996, 36, 366-370.	1.1	1
120	Modeling impurity transfer to tokamak plasma. Technical Physics Letters, 2003, 29, 214-217.	0.7	1
121	Simulation of ASDEX Upgrade Edge Plasma in the H-Regime. Contributions To Plasma Physics, 2004, 44, 200-202.	1.1	1
122	Towards Modeling of ITER Hâ€mode. Contributions To Plasma Physics, 2010, 50, 338-342.	1.1	1
123	Drift Mechanism of Scrape-Off Layer Formation in a Tokamak. Technical Physics Letters, 2018, 44, 235-238.	0.7	1
124	Edge tokamak transport in regimes with high collisionality. Contributions To Plasma Physics, 0, , .	1.1	1
125	The Effect of the Anomalous Inertia, Viscosity and the Electric Field on the Transport Within the Sol in a Tokamak. Contributions To Plasma Physics, 1994, 34, 324-330.	1.1	0
126	Testing of the SOLPS-ITER code at Globus-M2 spherical tokamak with detached divertor. MATEC Web of Conferences, 2018, 245, 13003.	0.2	0