

Carl R Sovinec

List of Publications by Year in descending order

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36
papers

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628
citing authors

#	ARTICLE	IF	CITATIONS
1	Computational study of runaway electrons in MST tokamak discharges with applied resonant magnetic perturbation. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	3
2	3D simulations of vertical displacement events in tokamaks: A benchmark of M3D-C1, NIMROD, and JOREK. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	19
3	Laminar and turbulent plasmoid ejection in a laboratory Parker Spiral current sheet. <i>Journal of Plasma Physics</i> , 2021, 87, .	2.1	3
4	Direct measurements of the 3D plasma velocity in single-helical-axis RFP plasmas. <i>Physics of Plasmas</i> , 2021, 28, 012510.	1.9	0
5	The influence of boundary and edge-plasma modeling in computations of axisymmetric vertical displacement. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	7
6	Axisymmetric simulations of vertical displacement events in tokamaks: A benchmark of M3D-C1, NIMROD, and JOREK. <i>Physics of Plasmas</i> , 2020, 27, 022505.	1.9	18
7	A laboratory model for the Parker spiral and magnetized stellar winds. <i>Nature Physics</i> , 2019, 15, 1095-1100.	16.7	9
8	Effects of asymmetries in computations of forced vertical displacement events. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 024003.	2.1	21
9	Mode penetration induced by transient magnetic perturbations. <i>Physics of Plasmas</i> , 2018, 25, 082507.	1.9	12
10	Nonlinear modeling of forced magnetic reconnection in slab geometry with NIMROD. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	16
11	Two-fluid and finite Larmor radius effects on helicity evolution in a plasma pinch. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	9
12	Nature of axial tail instability and bubble- ϵ blob formation in near-Earth plasma sheet. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 653-663.	2.4	12
13	Magnetic reconnection process in transient coaxial helicity injection. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	23
14	Self-consistent simulations of nonlinear magnetohydrodynamics and profile evolution in stellarator configurations. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	7
15	Resistive magnetohydrodynamic simulations of helicity-injected startup plasmas in National Spherical Torus eXperiment. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	13
16	First-order finite-Larmor-radius fluid modeling of tearing and relaxation in a plasma pinch. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	22
17	Stabilizing effects of edge current density on pedestal instabilities. <i>Physics of Plasmas</i> , 2012, 19, 032503.	1.9	15
18	Simulation of current-filament dynamics and relaxation in the Pegasus Spherical Tokamak. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	12

#	ARTICLE	IF	CITATIONS
19	First-order finite-Larmor-radius effects on magnetic tearing in pinch configurations. Physics of Plasmas, 2011, 18, .	1.9	15
20	Zero- β^2 modeling of coaxial helicity injection in the HIT-II spherical torus. Physics of Plasmas, 2011, 18, .	1.9	9
21	Edge localized linear ideal magnetohydrodynamic instability studies in an extended-magnetohydrodynamic code. Physics of Plasmas, 2010, 17, 032103.	1.9	42
22	Magnetic reconnection with asymmetry in the outflow direction. Journal of Geophysical Research, 2010, 115, .	3.3	24
23	Calculating electron cyclotron current drive stabilization of resistive tearing modes in a nonlinear magnetohydrodynamic model. Physics of Plasmas, 2010, 17, 012502.	1.9	20
24	Moment approach to deriving parallel heat flow for general collisionality. Physics of Plasmas, 2009, 16, 022312.	1.9	29
25	MAGNETIC COLLIMATION AND MAGNETOHYDRODYNAMIC KINK INSTABILITY DRIVEN BY DIFFERENTIAL ROTATION. International Journal of Modern Physics D, 2008, 17, 1707-1713.	2.1	2
26	NIMROD resistive magnetohydrodynamic simulations of spheromak physics. Physics of Plasmas, 2008, 15, 032502.	1.9	19
27	Two-fluid studies of edge relaxation events in tokamaks. Journal of Physics: Conference Series, 2007, 78, 012070.	0.4	7
28	Computational modeling of fully ionized magnetized plasmas using the fluid approximation. Physics of Plasmas, 2006, 13, 058103.	1.9	48
29	$m=1$ ideal internal kink modes in a line-tied screw pinch. Physics of Plasmas, 2006, 13, 092102.	1.9	20
30	Simulation of spheromak evolution and energy confinement. Physics of Plasmas, 2005, 12, 056106.	1.9	26
31	Dynamics of the major disruption of a DIII-D plasma. Physics of Plasmas, 2005, 12, 056113.	1.9	25
32	The effect of artificial diffusivity on the flute instability. Physics of Plasmas, 2005, 12, 084504.	1.9	9
33	Formation and sustainment of electrostatically driven spheromaks in the resistive magnetohydrodynamic model. Physics of Plasmas, 2001, 8, 475-490.	1.9	71
34	Magnetohydrodynamic simulations of direct current helicity injection for current drive in tokamaks. Physics of Plasmas, 1996, 3, 1038-1046.	1.9	13
35	Transport reduction by current profile control in the reversed- β field pinch. Physics of Plasmas, 1995, 2, 2440-2446.	1.9	22
36	Lower- β hybrid poloidal current drive for fluctuation reduction in a reversed field pinch. Physics of Plasmas, 1994, 1, 3517-3519.	1.9	37