

Juan R Sanmartin

List of Publications by Year in descending order

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73
papers

1,429
citations

331670

21
h-index

345221

36
g-index

74
all docs

74
docs citations

74
times ranked

430
citing authors

#	ARTICLE	IF	CITATIONS
1	Bare wire anodes for electrodynamic tethers. <i>Journal of Propulsion and Power</i> , 1993, 9, 353-360.	2.2	215
2	Theory of a Probe in a Strong Magnetic Field. <i>Physics of Fluids</i> , 1970, 13, 103.	1.4	118
3	Electrostatic Plasma Instabilities Excited by a High-Frequency Electric Field. <i>Physics of Fluids</i> , 1970, 13, 1533.	1.4	108
4	Electrodynamic Tether Applications and Constraints. <i>Journal of Spacecraft and Rockets</i> , 2010, 47, 442-456.	1.9	68
5	Analysis of Bare-Tether Systems for Deorbiting Low-Earth-Orbit Satellites. <i>Journal of Spacecraft and Rockets</i> , 2002, 39, 198-205.	1.9	59
6	Far-Wake Structure in Rarefield Plasma Flows past Charged Bodies. <i>Physics of Fluids</i> , 1971, 14, 62.	1.4	57
7	Quasi-steady expansion of plasma ablated from laser-irradiated pellets. <i>Physics of Fluids</i> , 1981, 24, 2098.	1.4	38
8	Survival Probability of Round and Tape Tethers Against Debris Impact. <i>Journal of Spacecraft and Rockets</i> , 2013, 50, 603-608.	1.9	37
9	Damping models in the truncated derivative nonlinear Schrödinger equation. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	35
10	Self-similar motion of laser half-space plasmas. I. Deflagration regime. <i>Physics of Fluids</i> , 1978, 21, 1957.	1.4	33
11	Sounding rocket experiment of bare electrodynamic tether system. <i>Acta Astronautica</i> , 2009, 64, 313-324.	3.2	32
12	O Botafumeiro: Parametric pumping in the Middle Ages. <i>American Journal of Physics</i> , 1984, 52, 937-945.	0.7	31
13	Low Work-Function Coating for an Entirely Propellantless Bare Electrodynamic Tether. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 1441-1445.	1.3	31
14	Optimum sizing of bare-tape tethers for de-orbiting satellites at end of mission. <i>Advances in Space Research</i> , 2015, 56, 1485-1492.	2.6	28
15	Exploration of Outer Planets Using Tethers for Power and Propulsion. <i>Journal of Propulsion and Power</i> , 2005, 21, 573-576.	2.2	27
16	Floating bare tether as upper atmosphere probe. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	26
17	A review of electrodynamic tethers for science applications. <i>Plasma Sources Science and Technology</i> , 2010, 19, 034022.	3.1	26
18	End Effect in Langmuir Probe Response under Ionospheric Satellite Conditions. <i>Physics of Fluids</i> , 1972, 15, 1134.	1.4	24

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19	Self-similar motion of laser fusion plasmas. Absorption in an unbounded plasma. Physics of Fluids, 1977, 20, 1155.	1.4	24
20	Hard transition to chaotic dynamics in Alfvén wave fronts. Physics of Plasmas, 2004, 11, 2026-2035.	1.9	22
21	Analysis of tape tether survival in LEO against orbital debris. Advances in Space Research, 2014, 53, 1370-1376.	2.6	21
22	The radiation impedance of orbiting conductors. Journal of Geophysical Research, 1995, 100, 1677.	3.3	19
23	Self-similar motion of laser half-space plasmas. II. Thermal wave and intermediate regimes. Physics of Fluids, 1978, 21, 1967.	1.4	18
24	Resonant absorption in a plasma step profile. Plasma Physics and Controlled Fusion, 1987, 29, 419-432.	2.1	18
25	Efficiency of Electrodynamic Tether Thrusters. Journal of Spacecraft and Rockets, 2006, 43, 659-666.	1.9	18
26	Relativistic current collection by a cylindrical Langmuir probe. Physics of Plasmas, 2012, 19, 063506.	1.9	18
27	Jupiter Power Generation with Electrodynamic Tethers at Constant Orbital Energy. Journal of Propulsion and Power, 2009, 25, 415-423.	2.2	16
28	Transition from isentropic to isothermal expansion in laser produced plasmas. Plasma Physics, 1980, 22, 617-626.	0.9	15
29	Nonuniform target illumination in the deflagration regime: Thermal smoothing. Physics of Fluids, 1988, 31, 2320.	1.4	15
30	Bare-tether cathodic contact through thermionic emission by low-work-function materials. Physics of Plasmas, 2012, 19, .	1.9	14
31	Ion-Temperature-Sensitive Effect in Transient Langmuir Probe Response. Physics of Fluids, 1972, 15, 391.	1.4	13
32	Artificial auroral effects from a bare conducting tether. Journal of Geophysical Research, 1997, 102, 27257-27263.	3.3	12
33	Profile modification by light pressure in plasmas expanding with uniform, time-dependent temperature. Physics of Fluids, 1980, 23, 2413.	1.4	11
34	Current collection by an active spherical electrode in an unmagnetized plasma. Physics of Fluids B, 1992, 4, 3847-3855.	1.7	11
35	Alfvén wave far field from steady-current tethers. Journal of Geophysical Research, 1997, 102, 14625-14630.	3.3	11
36	Low work-function thermionic emission and orbital-motion-limited ion collection at bare-tether cathodic contact. Physics of Plasmas, 2015, 22, 053504.	1.9	11

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37	Self-consistent, nonlocal electron heat flux at arbitrary ion charge number. <i>Physics of Fluids B</i> , 1992, 4, 3579-3585.	1.7	10
38	Magnetic self-field effects on current collection by an ionospheric bare tether. <i>Journal of Geophysical Research</i> , 2002, 107, SIA 2-1.	3.3	10
39	Self-consistent profile modification in the underdense region of laser-produced plasmas. <i>Journal of Plasma Physics</i> , 1980, 23, 349-356.	2.1	9
40	Ion charge number and flux saturation effects in the corona of a laser-irradiated pellet. <i>Physics of Fluids</i> , 1983, 26, 3361.	1.4	9
41	Analysis of thermionic bare tether operation regimes in passive mode. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	9
42	Comment on "Steady-state planar ablative flow" [Phys. Fluids 25, 1644 (1982)]. <i>Physics of Fluids</i> , 1983, 26, 2754.	1.4	7
43	Nonlocal electron heat flux revisited. <i>Physics of Fluids B</i> , 1990, 2, 2519-2521.	1.7	7
44	Efficiency of different types of ED-tether thrusters. <i>AIP Conference Proceedings</i> , 2001, , .	0.4	7
45	A Proposed Two-Stage Two-Tether Scientific Mission at Jupiter. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 274-281.	1.3	7
46	Macroscopic motion and gravitation in thermodynamics. <i>European Journal of Physics</i> , 1995, 16, 8-13.	0.6	6
47	Magnetic pumping of whistler waves by tether current modulation. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	6
48	Influence of air drag on the optimal hand launching of a small, round projectile. <i>American Journal of Physics</i> , 1982, 50, 59-64.	0.7	5
49	The hydrodynamic efficiency of laser-target acceleration. <i>Plasma Physics and Controlled Fusion</i> , 1985, 27, 983-993.	2.1	5
50	Experimental Evidence of a Hard Transition to Chaos. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1998, 08, 2255-2262.	1.7	4
51	The radiation impedance of electrodynamic tethers in a polar Jovian orbit. <i>Advances in Space Research</i> , 2010, 45, 1050-1057.	2.6	4
52	Survivability analysis of tape-tether against two concurring impacts with debris. <i>Advances in Space Research</i> , 2016, 57, 2273-2284.	2.6	4
53	Analysis of Tether-Mission Concept for Multiple Flybys of Moon Europa. <i>Journal of Propulsion and Power</i> , 2017, 33, 338-342.	2.2	4
54	Inverse bremsstrahlung absorption in spherical laser targets. <i>Plasma Physics and Controlled Fusion</i> , 1985, 27, 279-297.	2.1	3

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55	Two-electron temperature model of a laser-driven implosion. <i>Physics of Fluids</i> , 1985, 28, 2282.	1.4	3
56	Nonlocal electron heat relaxation in a plasma shock at arbitrary ionization number. <i>Physics of Fluids B</i> , 1993, 5, 1485-1490.	1.7	3
57	Role of Superconducting Shields in Electrodynamic Propulsion. <i>Journal of Propulsion and Power</i> , 2008, 24, 851-854.	2.2	3
58	Comparative <i>Saturn</i> Versus <i>Jupiter</i> Tether Operation. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 6026-6030.	2.4	3
59	Ion Correlations due to a High-Frequency Electric Field and Their Effect on the Nonlinear Plasma Conductivity. <i>Physics of Fluids</i> , 1970, 13, 1223.	1.4	2
60	Widespread error in a standard problem in the dynamics of deformable bodies. <i>American Journal of Physics</i> , 1978, 46, 949-950.	0.7	2
61	Spherical thermal waves in laser plasmas. <i>Physics of Fluids</i> , 1980, 23, 650.	1.4	2
62	Comment on "Another look at the uniform rope sliding over the edge of a smooth table". <i>American Journal of Physics</i> , 1983, 51, 585-585.	0.7	2
63	Coronal fluid-dynamics in laser fusion. <i>Laser and Particle Beams</i> , 1989, 7, 219-228.	1.0	2
64	Non-uniform target illumination in deflagration regime. Refractive smoothing. <i>Laser and Particle Beams</i> , 1989, 7, 627-635.	1.0	2
65	Performance of Electrodynamic Tethers and Ion Thrusters Against Hybrid Systems. <i>Journal of Propulsion and Power</i> , 2006, 22, 698-700.	2.2	2
66	Dispersion relation for electron waves propagating in an isotropic plasma containing Maxwellian and suprathermal electrons. <i>Journal of Plasma Physics</i> , 1975, 14, 7-17.	2.1	1
67	Self-consistent resonance absorption with two-layer profile steepening. <i>Physics of Fluids B</i> , 1989, 1, 2450-2461.	1.7	1
68	Plasma kinetics issues in an ESA study for a plasma laboratory in space. <i>Plasma Physics and Controlled Fusion</i> , 2008, 50, 074016.	2.1	1
69	Tether radiation in Juno-type and circular-equatorial Jovian orbits. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	1
70	Similarities between Ion Waves in Plasmas and Gravity Waves in Incompressible Fluids. <i>Physics of Fluids</i> , 1971, 14, 786.	1.4	0
71	Magnetic and electric current morphology in the plasma ejected by a laser-irradiated foil. <i>Physics of Fluids B</i> , 1991, 3, 1708-1716.	1.7	0
72	A derivation of thermodynamic principles. <i>European Journal of Physics</i> , 1996, 17, 76-81.	0.6	0

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73	Fast magnetosonic wave excitation by an array of wires with time-modulated currents. <i>Annales Geophysicae</i> , 2010, 28, 577-586.	1.6	0