

JosÃ© M FerrÃ¡ndiz

List of Publications by Year in descending order

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88
papers

1,040
citations

430442

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99
all docs

99
docs citations

99
times ranked

271
citing authors

#	ARTICLE	IF	CITATIONS
1	A General Procedure For the Adaptation of Multistep Algorithms to the Integration of Oscillatory Problems. <i>SIAM Journal on Numerical Analysis</i> , 1998, 35, 1684-1708.	1.1	105
2	Report of the International Astronomical Union Division I Working Group on Precession and the Ecliptic. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2006, 94, 351-367.	0.5	57
3	Controlling the error growth in long-term numerical integration of perturbed oscillations in one or several frequencies. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004, 460, 561-567.	1.0	50
4	A general canonical transformation increasing the number of variables with application to the two-body problem. <i>Celestial Mechanics</i> , 1987, 41, 343-357.	0.1	46
5	Multistep Numerical Methods Based on the Scheifele G-Functions with Application to Satellite Dynamics. <i>SIAM Journal on Numerical Analysis</i> , 1997, 34, 359-375.	1.1	40
6	On the effect of the mantle elasticity on the earth's rotation. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1995, 61, 117-180.	0.5	36
7	Polar motion prediction using the combination of SSA and Copula-based analysis. <i>Earth, Planets and Space</i> , 2018, 70, 115.	0.9	34
8	A Hamiltonian theory for an elastic earth: First order analytical integration. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1991, 51, 35-65.	0.5	31
9	A Hamiltonian theory for an elastic earth: Canonical variables and kinetic energy. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1990, 49, 303-326.	0.5	30
10	A Hamiltonian theory for an elastic earth: Elastic energy of deformation. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1991, 51, 17-34.	0.5	24
11	A new hybrid method to improve the ultra-short-term prediction of LOD. <i>Journal of Geodesy</i> , 2020, 94, 23.	1.6	24
12	A Hamiltonian approach to dissipative phenomena between the Earth's mantle and core, and effects on free nutations. <i>Geophysical Journal International</i> , 1997, 130, 326-334.	1.0	23
13	Forced nutations of a two-layer Earth model. <i>Monthly Notices of the Royal Astronomical Society</i> , 2001, 322, 785-799.	1.6	23
14	Increased accuracy of computations in the main satellite problem through linearization methods. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1992, 53, 347-363.	0.5	22
15	Testing a new Free Core Nutation empirical model. <i>Journal of Geodynamics</i> , 2016, 94-95, 59-67.	0.7	20
16	Generalized elliptic anomalies. <i>Celestial Mechanics</i> , 1987, 40, 315-328.	0.1	19
17	Behaviour of the SMF method for the numerical integration of satellite orbits. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1995, 63, 29-40.	0.5	19
18	Higher-order variable-step algorithms adapted to the accurate numerical integration of perturbed oscillators. <i>Computers in Physics</i> , 1998, 12, 467.	0.6	19

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19	Elimination of the nodes when the satellite is a non spherical rigid body. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1989, 46, 307-320.	0.5	18
20	Effects of dissipation and a liquid core on forced nutations in Hamiltonian theory. <i>Geophysical Journal International</i> , 2000, 142, 703-715.	1.0	17
21	VSVO multistep formulae adapted to perturbed second-order differential equations. <i>Applied Mathematics Letters</i> , 1998, 11, 83-87.	1.5	16
22	Indirect effect of the triaxiality in the Hamiltonian theory for the rigid Earth nutations. <i>Astronomy and Astrophysics</i> , 2002, 389, 1047-1054.	2.1	16
23	Canonical approach to the free nutations of a three-layer Earth model. <i>Journal of Geophysical Research</i> , 2001, 106, 11387-11397.	3.3	14
24	Precession of the Nonrigid Earth: Effect of the Fluid Outer Core. <i>Astronomical Journal</i> , 2004, 128, 1407-1411.	1.9	14
25	A Hamiltonian theory for an elastic earth: Secular rotational acceleration. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1991, 52, 381-396.	0.5	13
26	A New Symbolic Processor for the Earth Rotation Theory. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2002, 82, 243-263.	0.5	13
27	Numeric multistep variable methods for perturbed linear system integration. <i>Applied Mathematics and Computation</i> , 2007, 190, 63-79.	1.4	13
28	Accurate analytical nutation series. <i>Monthly Notices of the Royal Astronomical Society</i> , 1999, 306, L45-L49.	1.6	12
29	An Improved Empirical Harmonic Model of the Celestial Intermediate Pole Offsets from a Global VLBI Solution. <i>Astronomical Journal</i> , 2017, 154, 166.	1.9	12
30	Numerical tracking of small deviations from analytically known periodic orbits. <i>Computers in Physics</i> , 1994, 8, 455.	0.6	11
31	Non-integrability of some Hamiltonian systems in polar coordinates. <i>Journal of Physics A</i> , 1997, 30, 5869-5876.	1.6	11
32	On the decorrelation filtering of RL05 GRACE data for global applications. <i>Geophysical Journal International</i> , 2015, 200, 173-184.	1.0	11
33	On the consistency of the current conventional EOP series and the celestial and terrestrial reference frames. <i>Journal of Geodesy</i> , 2017, 91, 135-149.	1.6	11
34	A new method to improve the prediction of the celestial pole offsets. <i>Scientific Reports</i> , 2018, 8, 13861.	1.6	11
35	Hamiltonian theory for the non-rigid Earth: Semidiurnal terms. <i>Astronomy and Astrophysics</i> , 2001, 370, 330-341.	2.1	11
36	Linearization in special cases of perturbed Keplerian motions. <i>Celestial Mechanics</i> , 1986, 39, 23-31.	0.1	10

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37	On the tidal variation of the geopotential. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1993, 57, 279-292.	0.5	10
38	Non-existence of rational integrals in the J22-problem. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995, 207, 180-184.	0.9	10
39	Accurate Numerical Integration of Perturbed Oscillatory Systems in Two Frequencies. <i>ACM Transactions on Mathematical Software</i> , 2009, 36, 1-34.	1.6	9
40	Molecular cloning and localization of the luteinizing hormone β subunit and glycoprotein hormone α subunit from Japanese anchovy <i>Engraulis japonicus</i> . <i>Journal of Fish Biology</i> , 2010, 77, 372-387.	0.7	9
41	The New IAU/IAG Joint Working Group on Theory of Earth Rotation. <i>International Association of Geodesy Symposia</i> , 2015, , 533-538.	0.2	9
42	Dynamical adjustments in IAU 2000A nutation series arising from IAU 2006 precession. <i>Astronomy and Astrophysics</i> , 2017, 604, A92.	2.1	9
43	Obtaining the free frequencies of the non-rigid Earth. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1998, 71, 95-108.	0.5	8
44	On the roto-translatory motion of a satellite of an oblate primary. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1993, 57, 189-202.	0.5	7
45	A rigorous Hamiltonian approach to the rotation of elastic bodies. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1994, 58, 277-295.	0.5	7
46	Non integrability of the truncated zonal satellite Hamiltonian at any order. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1996, 221, 153-157.	0.9	7
47	Multistep numerical methods for the integration of oscillatory problems in several frequencies. <i>Advances in Engineering Software</i> , 2009, 40, 543-553.	1.8	7
48	Earth's Rotation: A Challenging Problem in Mathematics and Physics. <i>Pure and Applied Geophysics</i> , 2015, 172, 57-74.	0.8	7
49	Integrability of Hamiltonians with polynomial potentials. <i>Journal of Computational and Applied Mathematics</i> , 2003, 158, 213-224.	1.1	6
50	Consistency Problems in the Improvement of the IAU Precession-Nutation Theories: Effects of the Dynamical Ellipticity Differences. <i>Pure and Applied Geophysics</i> , 2016, 173, 861-870.	0.8	6
51	CONTRIBUTIONS OF THE ELASTICITY TO THE PRECESSION OF A TWO-LAYER EARTH MODEL. <i>Astronomical Journal</i> , 2017, 153, 79.	1.9	6
52	Numerical integration of perturbed linear systems. <i>Applied Numerical Mathematics</i> , 1999, 31, 183-189.	1.2	5
53	ENCKE METHODS ADAPTED TO REGULARIZING VARIABLES. <i>International Journal of Modern Physics A</i> , 2000, 15, 3993-4010.	0.5	5
54	Application of first-order canonical perturbation method with dissipative Hori-like kernel. <i>International Journal of Non-Linear Mechanics</i> , 2017, 90, 11-20.	1.4	5

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55	New numerical method improving the integration of time in KS regularization. Journal of Guidance, Control, and Dynamics, 1996, 19, 742-744.	1.6	4
56	Precession of the non-rigid Earth: Effect of the mass redistribution. Astronomy and Astrophysics, 2019, 626, A58.	2.1	4
57	Improved Bettis Methods for Long-Term Prediction. NATO ASI Series Series B: Physics, 1991, , 515-522.	0.2	4
58	Exact linearization of non-planar intermediary orbits in the satellite theory. Celestial Mechanics and Dynamical Astronomy, 1991, 52, 1-12.	0.5	3
59	Canonical treatment of dissipative forces between Earth mantle and core. Symposium - International Astronomical Union, 1996, 172, 233-238.	0.1	3
60	HISTORICAL REFLECTIONS ON THE WORK OF COMMISSION 4. Proceedings of the International Astronomical Union, 2015, 11, 1-21.	0.0	3
61	How Consistent are The Current Conventional Celestial and Terrestrial Reference Frames and The Conventional Earth Orientation Parameters?. International Association of Geodesy Symposia, 2015, , 183-189.	0.2	3
62	Report of the IAU/IAG Joint Working Group on Theory of Earth Rotation and Validation. International Association of Geodesy Symposia, 2020, , 99-106.	0.2	3
63	Long-Time Predictions of Satellite Orbits by Numerical Integration. NATO ASI Series Series B: Physics, 1991, , 387-394.	0.2	3
64	Advances in the Unified Theory of the Rotation of the Nonrigid Earth. International Astronomical Union Colloquium, 2000, 180, 236-241.	0.1	2
65	An improved algorithm to compute circular functions of Poisson series. Celestial Mechanics and Dynamical Astronomy, 2007, 99, 59-68.	0.5	2
66	A note on the periodic orbits of a self excited rigid body. Mechanics Research Communications, 2014, 56, 50-52.	1.0	2
67	Forced nutations of a two-layer Earth in canonical formulation with dissipative Hori-like kernel. Advances in Space Research, 2020, 66, 2646-2653.	1.2	2
68	Limitations of the IAU2000 nutation model accuracy due to the lack of Oppolzer terms of planetary origin. Astronomy and Astrophysics, 2018, 618, A69.	2.1	2
69	Towards Understanding the Interconnection between Celestial Pole Motion and Earth's Magnetic Field Using Space Geodetic Techniques. Sensors, 2021, 21, 7555.	2.1	2
70	New Intermediaries for the Main Problem in Satellite Theory. International Astronomical Union Colloquium, 1993, 132, 341-352.	0.1	1
71	Extended canonical transformations with redundant variables: Hamiltonian and Lagrangean formulations and degeneration. Zeitschrift Fur Angewandte Mathematik Und Physik, 1994, 45, 458-477.	0.7	1
72	The Non-integrability of the Truncated Two Fixed Centres Problem. Journal of Differential Equations, 1998, 143, 147-150.	1.1	1

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73	Nature and Properties of the Chandler Motion and Mechanism of its Damping and Excitation. International Astronomical Union Colloquium, 2000, 178, 447-453.	0.1	1
74	JASON-1 calibration campaign at the Ibiza island area. , 0, , .		1
75	Cassini's motions of the Moon and Mercury and possible excitations of free librations. Geodesy and Geodynamics, 2018, 9, 474-484.	1.0	1
76	Drift of the Earth's Principal Axes of Inertia from GRACE and Satellite Laser Ranging Data. Remote Sensing, 2020, 12, 314.	1.8	1
77	A Note on the Canonical Character of the Stiefel-Scheifele Time Element. NATO ASI Series Series B: Physics, 1995, , 545-550.	0.2	1
78	Nutation of the non-rigid Earth: Effect of the mass redistribution. Astronomy and Astrophysics, 2020, 643, A159.	2.1	1
79	A family of multistep methods to integrate orbits on spheres. Numerische Mathematik, 1993, 65, 285-300.	0.9	0
80	Long-Term Predictions for Highly Eccentric Orbits. International Astronomical Union Colloquium, 1993, 132, 353-363.	0.1	0
81	About the application of angle-action variables to the rotation of deformable celestial bodies. Symposium - International Astronomical Union, 1996, 172, 243-244.	0.1	0
82	Tidal Variations of the Earth Rotation. International Astronomical Union Colloquium, 2000, 178, 565-569.	0.1	0
83	Free Frequencies for a Three Layered Earth Model. International Astronomical Union Colloquium, 2000, 178, 481-485.	0.1	0
84	A New Algorithm to Accelerate Harmonic Analysis of Time Series. ISRN Applied Mathematics, 2013, 2013, 1-8.	0.5	0
85	A First Assessment of the Corrections for the Consistency of the IAU2000 and IAU2006 Precession-Nutation Models. International Association of Geodesy Symposia, 2020, , 91-98.	0.2	0
86	The Rotation of the Nonrigid Earth at the Second Order. II. The Poincaré Model: Nonsingular Complex Canonical Variables and Poisson Terms. Astronomical Journal, 2021, 161, 232.	1.9	0
87	On the Tidal Variation of the Geopotential. , 1993, , 279-292.		0
88	- Mercury's Magnetic Field in the MESSENGER Era. , 2014, , 238-277.		0