José M Ferrándiz

List of Publications by Year
in descending order

88	1,040	430874	501196
papers	citations	18	28
		h-index	g-index

99	99	99	271
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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.	4.7	0
2	Towards Understanding the Interconnection between Celestial Pole Motion and Earth's Magnetic Field Using Space Geodetic Techniques. Sensors, 2021, 21, 7555.	3.8	2
3	Forced nutations of a two-layer Earth in canonical formulation with dissipative Hori-like kernel. Advances in Space Research, 2020, 66, 2646-2653.	2.6	2
4	Report of the IAU/IAG Joint Working Group on Theory of Earth Rotation and Validation. International Association of Geodesy Symposia, 2020, , 99-106.	0.4	3
5	Drift of the Earth's Principal Axes of Inertia from GRACE and Satellite Laser Ranging Data. Remote Sensing, 2020, 12, 314.	4.0	1
6	A new hybrid method to improve the ultra-short-term prediction of LOD. Journal of Geodesy, 2020, 94, 23.	3.6	24
7	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.	0.4	0
8	Nutation of the non-rigid Earth: Effect of the mass redistribution. Astronomy and Astrophysics, 2020, 643, A159.	5.1	1
9	Precession of the non-rigid Earth: Effect of the mass redistribution. Astronomy and Astrophysics, 2019, 626, A58.	5.1	4
10	Polar motion prediction using the combination of SSA and Copula-based analysis. Earth, Planets and Space, 2018, 70, 115.	2.5	34
11	A new method to improve the prediction of the celestial pole offsets. Scientific Reports, 2018, 8, 13861.	3.3	11
12	Cassini's motions of the Moon and Mercury and possible excitations of free librations. Geodesy and Geodynamics, 2018, 9, 474-484.	2.2	1
13	Limitations of the IAU2000 nutation model accuracy due to the lack of Oppolzer terms of planetary origin. Astronomy and Astrophysics, 2018, 618, A69.	5.1	2
14	Application of first-order canonical perturbation method with dissipative Hori-like kernel. International Journal of Non-Linear Mechanics, 2017, 90, 11-20.	2.6	5
15	CONTRIBUTIONS OF THE ELASTICITY TO THE PRECESSION OF A TWO-LAYER EARTH MODEL. Astronomical Journal, 2017, 153, 79.	4.7	6
16	On the consistency of the current conventional EOP series and the celestial and terrestrial reference frames. Journal of Geodesy, 2017, 91, 135-149.	3.6	11
17	An Improved Empirical Harmonic Model of the Celestial Intermediate Pole Offsets from a Global VLBI Solution. Astronomical Journal, 2017, 154, 166.	4.7	12
18	Dynamical adjustments in IAU 2000A nutation series arising from IAU 2006 precession. Astronomy and Astrophysics, 2017, 604, A92.	5.1	9

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19	Testing a new Free Core Nutation empirical model. Journal of Geodynamics, 2016, 94-95, 59-67.	1.6	20
20	Consistency Problems in the Improvement of the IAU Precession–Nutation Theories: Effects of the Dynamical Ellipticity Differences. Pure and Applied Geophysics, 2016, 173, 861-870.	1.9	6
21	HISTORICAL REFLECTIONS ON THE WORK OF COMMISSION 4. Proceedings of the International Astronomical Union, 2015, 11, 1-21.	0.0	3
22	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.	0.4	3
23	Earth's Rotation: A Challenging Problem in Mathematics and Physics. Pure and Applied Geophysics, 2015, 172, 57-74.	1.9	7
24	The New IAU/IAG Joint Working Group on Theory of Earth Rotation. International Association of Geodesy Symposia, 2015, , 533-538.	0.4	9
25	On the decorrelation filtering of RL05 GRACE data for global applications. Geophysical Journal International, 2015, 200, 173-184.	2.4	11
26	A note on the periodic orbits of a self excited rigid body. Mechanics Research Communications, 2014, 56, 50-52.	1.8	2
27	- Mercury's Magnetic Field in the MESSENGER Era. , 2014, , 238-277.		0
28	A New Algorithm to Accelerate Harmonic Analysis of Time Series. ISRN Applied Mathematics, 2013, 2013, 1-8.	0.5	0
29	Molecular cloning and localization of the luteinizing hormone β subunit and glycoprotein hormone α subunit from Japanese anchovy *Engraulis japonicus*. Journal of Fish Biology, 2010, 77, 372-387.	1.6	9
30	Accurate Numerical Integration of Perturbed Oscillatory Systems in Two Frequencies. ACM Transactions on Mathematical Software, 2009, 36, 1-34.	2.9	9
31	Multistep numerical methods for the integration of oscillatory problems in several frequencies. Advances in Engineering Software, 2009, 40, 543-553.	3.8	7
32	Numeric multistep variable methods for perturbed linear system integration. Applied Mathematics and Computation, 2007, 190, 63-79.	2.2	13
33	An improved algorithm to compute circular functions of Poisson series. Celestial Mechanics and Dynamical Astronomy, 2007, 99, 59-68.	1.4	2
34	Report of the International Astronomical Union Division I Working Group on Precession and the Ecliptic. Celestial Mechanics and Dynamical Astronomy, 2006, 94, 351-367.	1.4	57
35	Controlling the error growth in long–term numerical integration of perturbed oscillations in one or several frequencies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 561-567.	2.1	50
36	Precession of the Nonrigid Earth: Effect of the Fluid Outer Core. Astronomical Journal, 2004, 128, 1407-1411.	4.7	14

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37	Integrability of Hamiltonians with polynomial potentials. Journal of Computational and Applied Mathematics, 2003, 158, 213-224.	2.0	6
38	A New Symbolic Processor for the Earth Rotation Theory. Celestial Mechanics and Dynamical Astronomy, 2002, 82, 243-263.	1.4	13
39	Indirect effect of the triaxiality in the Hamiltonian theory for the rigid Earth nutations. Astronomy and Astrophysics, 2002, 389, 1047-1054.	5.1	16
40	Canonical approach to the free nutations of a three-layer Earth model. Journal of Geophysical Research, 2001, 106, 11387-11397.	3.3	14
41	Forced nutations of a two-layer Earth model. Monthly Notices of the Royal Astronomical Society, 2001, 322, 785-799.	4.4	23
42	Hamiltonian theory for the non-rigid Earth: Semidiurnal terms. Astronomy and Astrophysics, 2001, 370, 330-341.	5.1	11
43	Effects of dissipation and a liquid core on forced nutations in Hamiltonian theory. Geophysical Journal International, 2000, 142, 703-715.	2.4	17
44	Advances in the Unified Theory of the Rotation of the Nonrigid Earth. International Astronomical Union Colloquium, 2000, 180, 236-241.	0.1	2
45	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
46	Tidal Variations of the Earth Rotation. International Astronomical Union Colloquium, 2000, 178, 565-569.	0.1	0
47	Free Frequencies for a Three Layered Earth Model. International Astronomical Union Colloquium, 2000, 178, 481-485.	0.1	0
48	ENCKE METHODS ADAPTED TO REGULARIZING VARIABLES. International Journal of Modern Physics A, 2000, 15, 3993-4010.	1.5	5
49	Numerical integration of perturbed linear systems. Applied Numerical Mathematics, 1999, 31, 183-189.	2.1	5
50	Accurate analytical nutation series. Monthly Notices of the Royal Astronomical Society, 1999, 306, L45-L49.	4.4	12
51	Obtaining the free frequencies of the non€rigid Earth. Celestial Mechanics and Dynamical Astronomy, 1998, 71, 95-108.	1.4	8
52	The Non-integrability of the Truncated Two Fixed Centres Problem. Journal of Differential Equations, 1998, 143, 147-150.	2.2	1
53	VSVO multistep formulae adapted to perturbed second-order differential equations. Applied Mathematics Letters, 1998, 11, 83-87.	2.7	16
54	A General Procedure For the Adaptation of Multistep Algorithms to the Integration of Oscillatory Problems. SIAM Journal on Numerical Analysis, 1998, 35, 1684-1708.	2.3	105

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55	Higher-order variable-step algorithms adapted to the accurate numerical integration of perturbed oscillators. Computers in Physics, 1998, 12, 467.	0.5	19
56	Non-integrability of some Hamiltonian systems in polar coordinates. Journal of Physics A, 1997, 30, 5869-5876.	1.6	11
57	Multistep Numerical Methods Based on the Scheifele G-Functions with Application to Satellite Dynamics. SIAM Journal on Numerical Analysis, 1997, 34, 359-375.	2.3	40
58	A Hamiltonian approach to dissipative phenomena between the Earth's mantle and core, and effects on free nutations. Geophysical Journal International, 1997, 130, 326-334.	2.4	23
59	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
60	Canonical treatment of dissipative forces between Earth mantle and core. Symposium - International Astronomical Union, 1996, 172, 233-238.	0.1	3
61	Non integrability of the truncated zonal satellite Hamiltonian at any order. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 221, 153-157.	2.1	7
62	New numerical method improving the integration of time in KS regularization. Journal of Guidance, Control, and Dynamics, 1996, 19, 742-744.	2.8	4
63	Behaviour of the SMF method for the numerical integration of satellite orbits. Celestial Mechanics and Dynamical Astronomy, 1995, 63, 29-40.	1.4	19
64	On the effect of the mantle elasticity on the earth's rotation. Celestial Mechanics and Dynamical Astronomy, 1995, 61, 117-180.	1.4	36
65	Non-existence of rational integrals in the J22-problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 207, 180-184.	2.1	10
66	A Note on the Canonical Character of the Stiefel-Scheifele Time Element. NATO ASI Series Series B: Physics, 1995, , 545-550.	0.2	1
67	Numerical tracking of small deviations from analytically known periodic orbits. Computers in Physics, 1994, 8, 455.	0.5	11
68	Extended canonical transformations with redundant variables: Hamiltonian and Lagrangean formulations and degeneration. Zeitschrift Fur Angewandte Mathematik Und Physik, 1994, 45, 458-477.	1.4	1
69	A rigorous Hamiltonian approach to the rotation of elastic bodies. Celestial Mechanics and Dynamical Astronomy, 1994, 58, 277-295.	1.4	7
70	On the roto-translatory motion of a satellite of an oblate primary. Celestial Mechanics and Dynamical Astronomy, 1993, 57, 189-202.	1.4	7
71	On the tidal variation of the geopotential. Celestial Mechanics and Dynamical Astronomy, 1993, 57, 279-292.	1.4	10
72	A family of multistep methods to integrate orbits on spheres. Numerische Mathematik, 1993, 65, 285-300.	1.9	0

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73	New Intermediaries for the Main Problem in Satellite Theory. International Astronomical Union Colloquium, 1993, 132, 341-352.	0.1	1
74	Long-Term Predictions for Highly Eccentric Orbits. International Astronomical Union Colloquium, 1993, 132, 353-363.	0.1	0
75	On the Tidal Variation of the Geopotential. , 1993, , 279-292.		0
76	Increased accuracy of computations in the main satellite problem through linearization methods. Celestial Mechanics and Dynamical Astronomy, 1992, 53, 347-363.	1.4	22
77	A Hamiltonian theory for an elastic earth: Elastic energy of deformation. Celestial Mechanics and Dynamical Astronomy, 1991, 51, 17-34.	1.4	24
78	A Hamiltonian theory for an elastic earth: First order analytical integration. Celestial Mechanics and Dynamical Astronomy, 1991, 51, 35-65.	1.4	31
79	A Hamiltonian theory for an elastic earth: Secular rotational acceleration. Celestial Mechanics and Dynamical Astronomy, 1991, 52, 381-396.	1.4	13
80	Exact linearization of non-planar intermediary orbits in the satellite theory. Celestial Mechanics and Dynamical Astronomy, 1991, 52, 1-12.	1.4	3
81	Long-Time Predictions of Satellite Orbits by Numerical Integration. NATO ASI Series Series B: Physics, 1991, , 387-394.	0.2	3
82	Improved Bettis Methods for Long-Term Prediction. NATO ASI Series Series B: Physics, 1991, , 515-522.	0.2	4
83	A Hamiltonian theory for an elastic earth: Canonical variables and kinetic energy. Celestial Mechanics and Dynamical Astronomy, 1990, 49, 303-326.	1.4	30
84	Elimination of the nodes when the satellite is a non spherical rigid body. Celestial Mechanics and Dynamical Astronomy, 1989, 46, 307-320.	1.4	18
85	Generalized elliptic anomalies. Celestial Mechanics, 1987, 40, 315-328.	0.1	19
86	A general canonical transformation increasing the number of variables with application to the two-body problem. Celestial Mechanics, 1987, 41, 343-357.	0.1	46
87	Linearization in special cases of perturbed Keplerian motions. Celestial Mechanics, 1986, 39, 23-31.	0.1	10
88	JASON-1 calibration campaign at the Ibiza island area. , 0, , .		1