Euaggelos E Zotos

List of Publications by Year
in descending order

134 papers	1,381 citations	331538 21 h-index	501076 28 g-index
135 all docs	135 docs citations	135 times ranked	297 citing authors

#	Article	IF	Citations
1	Fractal basins of attraction in the planar circular restricted three-body problem with oblateness and radiation pressure. Astrophysics and Space Science, 2016, 361, 1.	0.5	68
2	Crash test for the Copenhagen problem with oblateness. Celestial Mechanics and Dynamical Astronomy, 2015, 122, 75-99.	0.5	44
3	Revealing the basins of convergence in the planar equilateral restricted four-body problem. Astrophysics and Space Science, 2017, 362, 1.	0.5	43
4	Basins of attraction of equilibrium points in the planar circular restricted five-body problem. Astrophysics and Space Science, 2018, 363, 1.	0.5	41
5	Basins of convergence of equilibrium points in the restricted three-body problem with modified gravitational potential. Chaos, Solitons and Fractals, 2020, 134, 109704.	2.5	40
6	Comparing the fractal basins of attraction in the Hill problem with oblateness and radiation. Astrophysics and Space Science, 2017, 362, 1.	0.5	31
7	Orbit classification in the meridional plane of a disk galaxy model with a spherical nucleus. Celestial Mechanics and Dynamical Astronomy, 2013, 116, 417-438.	0.5	30
8	Basins of convergence of equilibrium points in the pseudo-Newtonian planar circular restricted three-body problem. Astrophysics and Space Science, 2017, 362, 1.	0.5	30
9	A new dynamical model for the study of galactic structure. New Astronomy, 2011, 16, 391-401.	0.8	28
10	A Hamiltonian system of three degrees of freedom with eight channels of escape: The Great Escape. Nonlinear Dynamics, 2014, 76, 1301-1326.	2.7	27
11	Trapped and Escaping Orbits in an Axially Symmetric Galactic-Type Potential. Publications of the Astronomical Society of Australia, 2012, 29, 161-173.	1.3	26
12	On the Newtonâ€“Raphson basins of convergence of the out-of-plane equilibrium points in the Copenhagen problem with oblate primaries. International Journal of Non-Linear Mechanics, 2018, 103, 93-103.	1.4	26
13	Revealing the escape mechanism of three-dimensional orbits in a tidally limited star cluster. Monthly Notices of the Royal Astronomical Society, 2015, 446, 770-792.	1.6	25
14	Escapes in Hamiltonian systems with multiple exit channels: part I. Nonlinear Dynamics, 2014, 78, 1389-1420.	2.7	24
15	Escape and collision dynamics in the planar equilateral restricted four-body problem. International Journal of Non-Linear Mechanics, 2016, 86, 66-82.	1.4	24
16	Fractal basins of convergence of libration points in the planar Copenhagen problem with a repulsive quasi-homogeneous Manev-type potential. International Journal of Non-Linear Mechanics, 2018, 103, 113-127.	1.4	24
17	Determining the Newton-Raphson basins of attraction in the electromagnetic Copenhagen problem. International Journal of Non-Linear Mechanics, 2017, 90, 111-123.	1.4	22
18	On the fractal basins of convergence of the libration points in the axisymmetric five-body problem: The convex configuration. International Journal of Non-Linear Mechanics, 2019, 109, 80-106.	1.4	22

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19	Exploring the nature of orbits in a galactic model with a massive nucleus. New Astronomy, 2012, 17, 576-588.	0.8	21
20	Classifying orbits in the restricted three-body problem. Nonlinear Dynamics, 2015, 82, 1233-1250.	2.7	21
21	Unveiling the influence of the radiation pressure in nature of orbits in the photogravitational restricted three-body problem. Astrophysics and Space Science, 2015, 360, 1.	0.5	21
22	On the Newtonâ€“Raphson basins of convergence associated with the libration points in the axisymmetric restricted five-body problem: The concave configuration. International Journal of Non-Linear Mechanics, 2019, 112, 25-47.	1.4	21
23	Equilibrium points and basins of convergence in the linear restricted four-body problem with angular velocity. Chaos, Solitons and Fractals, 2017, 101, 8-19.	2.5	20
24	Classifying orbits in the classical HÃ©nonâ€“Heiles Hamiltonian system. Nonlinear Dynamics, 2015, 79, 1665-1677.	2.7	18
25	Orbital and escape dynamics in barred galaxies â€“ II. The 3D system: exploring the role of the normally hyperbolic invariant manifolds. Monthly Notices of the Royal Astronomical Society, 2016, 463, 3965-3988.	1.6	17
26	Revealing the evolution, the stability, and the escapes of families of resonant periodic orbits in Hamiltonian systems. Nonlinear Dynamics, 2013, 73, 931-962.	2.7	16
27	Introducing a New 3D Dynamical Model for Barred Galaxies. Publications of the Astronomical Society of Australia, 2015, 32, .	1.3	16
28	Fractal basin boundaries and escape dynamics in a multiwell potential. Nonlinear Dynamics, 2016, 85, 1613-1633.	2.7	16
29	Basins of convergence of equilibrium points in the generalized HÃ©nonâ€“Heiles system. International Journal of Non-Linear Mechanics, 2018, 99, 218-228.	1.4	16
30	Classifying orbits in galaxy models with a prolate or an oblate dark matter halo component. Astronomy and Astrophysics, 2014, 563, A19.	2.1	16
31	Order and chaos in a new 3D dynamical model describing motion in non-axially symmetric galaxies. Nonlinear Dynamics, 2013, 74, 1203-1221.	2.7	15
32	Orbital dynamics in the planar Saturn-Titan system. Astrophysics and Space Science, 2015, 358, 1.	0.5	15
33	Orbit classification in the planar circular Pluto-Charon system. Astrophysics and Space Science, 2015, 360, 1.	0.5	15
34	Investigating the Basins of Convergence in the Circular Sitnikov Three-Body Problem with Non-spherical Primaries. Few-Body Systems, 2018, 59, 1.	0.7	15
35	Measuring the transition between nonhyperbolic and hyperbolic regimes in open Hamiltonian systems. Nonlinear Dynamics, 2020, 99, 3029-3039.	2.7	15
36	Orbital dynamics in the post-Newtonian planar circular restricted Sunâ€“Jupiter system. International Journal of Modern Physics D, 2018, 27, 1850036.	0.9	15

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37	Investigating the nature of motion in 3D perturbed elliptic oscillators displaying exact periodic orbits. Nonlinear Dynamics, 2012, 69, 1795-1805.	2.7	14
38	Escapes in Hamiltonian systems with multiple exit channels: part II. Nonlinear Dynamics, 2015, 82, 357-398.	2.7	14
39	Orbital and escape dynamics in barred galaxies â€“ I. The 2D system. Monthly Notices of the Royal Astronomical Society, 2016, 457, 2583-2603.	1.6	14
40	Dynamical analysis of bounded and unbounded orbits in a generalized HÃ©nonâ€“Heiles system. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 904-910.	0.9	14
41	Basins of Convergence in the Circular Sitnikov Four-Body Problem with Nonspherical Primaries. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2018, 28, 1830016.	0.7	14
42	Escape dynamics and fractal basins boundaries in the three-dimensional Earth-Moon system. Astrophysics and Space Science, 2016, 361, 1.	0.5	13
43	On the equilibria of the restricted three-body problem with a triaxial rigid body - I. Oblate primary. Results in Physics, 2021, 23, 103990.	2.0	13
44	Application of new dynamical spectra of orbits in Hamiltonian systems. Nonlinear Dynamics, 2012, 69, 2041-2063.	2.7	12
45	How does the oblateness coefficient influence the nature of orbits in the restricted three-body problem?. Astrophysics and Space Science, 2015, 358, 1.	0.5	12
46	The Fast Norm Vector Indicator (FNVI) method: a new dynamical parameter for detecting order and chaos in Hamiltonian systems. Nonlinear Dynamics, 2012, 70, 951-978.	2.7	11
47	An overview of the escape dynamics in the HÃ©nonâ€“Heiles Hamiltonian system. Meccanica, 2017, 52, 2615-2630.	1.2	11
48	ORDER AND CHAOS IN A THREE-DIMENSIONAL BINARY SYSTEM OF INTERACTING GALAXIES. Astrophysical Journal, 2012, 750, 56.	1.6	10
49	Orbit classification in an equal-mass non-spinning binary black hole pseudo-Newtonian system. Monthly Notices of the Royal Astronomical Society, 2018, 477, 5388-5405.	1.6	10
50	Orbit classification in exoplanetary systems. Astronomy and Astrophysics, 2020, 634, A60.	2.1	10
51	Revealing the influence of dark matter on the nature of motion and the families of orbits in axisymmetric galaxy models. Astronomy and Astrophysics, 2013, 560, A110.	2.1	10
52	Order and chaos in a galactic model with a strong nuclear bar. Research in Astronomy and Astrophysics, 2012, 12, 500-512.	0.7	9
53	Networks of periodic orbits in the circular restricted three-body problem with first order post-Newtonian terms. Meccanica, 2019, 54, 2339-2365.	1.2	9
54	Introducing a new version of the restricted three-body problem with a continuation fraction potential. New Astronomy, 2020, 81, 101444.	0.8	9

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55	Equilibrium dynamics of a circular restricted three-body problem with Kerr-like primaries. Nonlinear Dynamics, 2022, 107, 433-456.	2.7	9
56	Are semi-numerical methods an effective tool for locating periodic orbits in 3D potentials?. Nonlinear Dynamics, 2012, 70, 279-287.	2.7	8
57	Revealing the Character of Orbits in a Binary System Consisting of a Primary Galaxy and a Satellite Companion. Publications of the Astronomical Society of Australia, 2013, 30, .	1.3	8
58	Unveiling the Influence of Dark Matter in Axially Symmetric Galaxies. Publications of the Astronomical Society of Australia, 2013, 30, .	1.3	8
59	Determining the nature of orbits in disk galaxies with non-spherical nuclei. Nonlinear Dynamics, 2014, 76, 323-344.	2.7	8
60	Orbital and escape dynamics in barred galaxies â€“ III. The 3D system: correlations between the basins of escape and the NHIMs. Monthly Notices of the Royal Astronomical Society, 2018, 473, 806-825.	1.6	8
61	Revealing the Newtonâ€“Raphson basins of convergence in the circular pseudo-Newtonian Sitnikov problem. International Journal of Non-Linear Mechanics, 2018, 105, 43-54.	1.4	8
62	Unveiling the basins of convergence in the pseudo-Newtonian planar circular restricted four-body problem. New Astronomy, 2019, 66, 52-67.	0.8	8
63	Orbit classification and networks of periodic orbits in the planar circular restricted five-body problem. International Journal of Non-Linear Mechanics, 2019, 111, 119-141.	1.4	8
64	The grain size survival threshold in one-planet post-main-sequence exoplanetary systems. Astronomy and Astrophysics, 2020, 637, A14.	2.1	8
65	Dark halos acting as chaos controllers in asymmetric triaxial galaxy models. Research in Astronomy and Astrophysics, 2011, 11, 811-823.	0.7	7
66	Orbit classification in the Hill problem: I. The classical case. Nonlinear Dynamics, 2017, 89, 901-923.	2.7	7
67	Unravelling the escape dynamics and the nature of the normally hyperbolic invariant manifolds in tidally limited star clusters. Monthly Notices of the Royal Astronomical Society, 2017, 465, 525-546.	1.6	7
68	Exploring the Location and Linear Stability of the Equilibrium Points in the Equilateral Restricted Four-Body Problem. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050155.	0.7	7
69	On the equilibria of the restricted four-body problem with triaxial rigid primaries - I. Oblate bodies. Chaos, Solitons and Fractals, 2021, 142, 110500.	2.5	7
70	Using chaos indicators to determine vaccine influence on epidemic stabilization. Physical Review E, 2021, 103, 032212.	0.8	7
71	Equilibrium Points and Networks of Periodic Orbits in the Pseudo-Newtonian Planar Circular Restricted Three-body Problem. Astronomical Journal, 2022, 163, 75.	1.9	7
72	Orbital and escape dynamics in barred galaxies â€“ IV. Heteroclinic connections. Monthly Notices of the Royal Astronomical Society, 2019, 487, 1233-1247.	1.6	6

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73	On the classification of orbits in the three-dimensional Copenhagen problem with oblate primaries. International Journal of Non-Linear Mechanics, 2019, 108, 55-71.	1.4	6
74	A three-dimensional dynamical model for double-barred galaxies, escape dynamics and the role of the NHIMs. Communications in Nonlinear Science and Numerical Simulation, 2020, 80, 104989.	1.7	6
75	A New Formulation of a HÃ©nonâ€“Heiles Potential with Additional Singular Gravitational Terms. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050197.	0.7	6
76	On the equilibria of the restricted three-body problem with a triaxial rigid body, II: prolate primary. Results in Physics, 2022, 38, 105623.	2.0	6
77	Comparing the escape dynamics in tidally limited star cluster models. Monthly Notices of the Royal Astronomical Society, 2015, 452, 193-209.	1.6	5
78	Investigating the Newtonâ€“Raphson basins of attraction in the restricted three-body problem with modified Newtonian gravity. Journal of Applied Mathematics and Computing, 2018, 56, 53-71.	1.2	5
79	Comparing the basins of attraction for several methods in the circular Sitnikov problem with spheroid primaries. Astrophysics and Space Science, 2018, 363, 1.	0.5	5
80	On the nature of the motion of a test particle in the pseudo-Newtonian Hill system. Astrophysics and Space Science, 2019, 364, 1.	0.5	5
81	Orbit classification in a pseudo-Newtonian Copenhagen problem with Schwarzschild-like primaries. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2340-2353.	1.6	5
82	On the dynamics of a seventh-order generalized HÃ©non-Heiles potential. Results in Physics, 2020, 18, 103278.	2.0	5
83	Determining the nature of motion around Jupiter-like exoplanets using the elliptic restricted three-body problem. Planetary and Space Science, 2020, 187, 104945.	0.9	5
84	Order and chaos in a three dimensional galaxy model. Mechanics Research Communications, 2015, 69, 45-53.	1.0	4
85	Elucidating the escape dynamics of the four hill potential. Nonlinear Dynamics, 2017, 89, 135-151.	2.7	4
86	Investigating the planar circular restricted three-body problem with strong gravitational field. Meccanica, 2017, 52, 1995-2021.	1.2	4
87	Correlating the escape dynamics and the role of the normally hyperbolic invariant manifolds in a binary system of dwarf spheroidal galaxies. International Journal of Non-Linear Mechanics, 2018, 99, 182-203.	1.4	4
88	Comparing the Geometry of the Basins of Attraction, the Speed and the Efficiency of Several Numerical Methods. International Journal of Applied and Computational Mathematics, 2018, 4, 1.	0.9	4
89	Short-term stability of particles in the WD J0914+1914 white dwarf planetary system. Monthly Notices of the Royal Astronomical Society, 2020, 497, 5171-5181.	1.6	4
90	Quantitative orbit classification of the planar restricted three-body problem with application to the motion of a satellite around Jupiter. Chaos, Solitons and Fractals, 2021, 152, 111444.	2.5	4

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91	Escape dynamics and fractal basin boundaries in Seyfert galaxies. Nonlinear Dynamics, 2015, 80, 1109-1131.	2.7	3
92	Orbit classification in the Copenhagen problem with oblate primaries. Astronomische Nachrichten, 2019, 340, 760-770.	0.6	3
93	On the Convergence Dynamics of the Sitnikov Problem with Non-spherical Primaries. International Journal of Applied and Computational Mathematics, 2019, 5, 1.	0.9	3
94	Near-optimal capture in the planar circular restricted Pluto-Charon system. Planetary and Space Science, 2019, 165, 85-98.	0.9	3
95	Determining the Properties of the Basins of Convergence in the Generalized HÃ©nonâ€“Heiles System. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050007.	0.7	3
96	Periodic orbits and equilibria for a seventh-order generalized HÃ©non-Heiles Hamiltonian system. Journal of Geometry and Physics, 2021, 167, 104290.	0.7	3
97	Orbital Dynamics in a Triaxial Barred Galaxy Model. I. The 2D System. Astrophysical Journal, 2021, 920, 61.	1.6	3
98	Equilibrium dynamics of the restricted three-body problem with radiating prolate bodies. Results in Physics, 2022, 34, 105240.	2.0	3
99	Are external perturbations responsible for chaotic motion in galaxies?. Chaos, Solitons and Fractals, 2011, 44, 501-509.	2.5	2
100	Determining the type of orbits in the central regions of barred galaxies. Research in Astronomy and Astrophysics, 2016, 16, 006.	0.7	2
101	Escape dynamics in a binary system of interacting galaxies. New Astronomy, 2016, 42, 10-23.	0.8	2
102	Distinguishing between order and chaos in a simple barred galaxy model. Astronomische Nachrichten, 2017, 338, 614-620.	0.6	2
103	Numerical investigation for the dynamics of the planar circular Pluto-Charon system. Planetary and Space Science, 2019, 179, 104718.	0.9	2
104	Orbital analysis in the planar circular Copenhagen problem using polar coordinates. Mathematical Methods in the Applied Sciences, 2020, 43, 2020-2031.	1.2	2
105	Convergence properties of equilibria in the restricted threeâ€body problem with prolate primaries. Astronomische Nachrichten, 2020, 341, 887-898.	0.6	2
106	Families of periodic orbits in a double-barred galaxy model. Communications in Nonlinear Science and Numerical Simulation, 2020, 89, 105283.	1.7	2
107	Classification of orbits in three-dimensional exoplanetary systems. Astronomy and Astrophysics, 2021, 645, A128.	2.1	2
108	Mapping exomoon trajectories around Earth-like exoplanets. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5292-5301.	1.6	2

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109	Effect of Multipole Moments in the Weak Field Limit of a Black Hole Plus Halo Potential. Astrophysical Journal, 2021, 908, 74.	1.6	2
110	Numerical investigation on the Hillâ€™s type lunar problem with homogeneous potential. Meccanica, 2021, 56, 2183-2195.	1.2	2
111	Networks and Bifurcations of Eccentric Orbits in Exoplanetary Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, .	0.7	2
112	Orbit classification in a disk galaxy model with a pseudo-Newtonian central black hole. Astronomy and Astrophysics, 2020, 643, A33.	2.1	2
113	Applying chaos indicators to Bianchi cosmological models. Chaos, Solitons and Fractals, 2022, 158, 112108.	2.5	2
114	Exploring the origin, the nature, and the dynamical behavior of distant stars in galaxy models. Nonlinear Dynamics, 2013, 74, 831-847.	2.7	1
115	Orbit classification of low and high angular momentum stars. Mechanics Research Communications, 2014, 62, 102-110.	1.0	1
116	Fugitive stars in active galaxies. Nonlinear Dynamics, 2016, 83, 1477-1496.	2.7	1
117	Basins of Convergence of Equilibrium Points in the Generalized Hill Problem. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1730043.	0.7	1
118	Escaping from a degenerate version of the four hill potential. Chaos, Solitons and Fractals, 2019, 126, 12-22.	2.5	1
119	Orbit Taxonomy in an Electromagnetic Binary System of Two Magnetic Dipoles. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2030011.	0.7	1
120	The basin boundary of the breakup channel in chaotic rearrangement scattering. Nonlinear Dynamics, 2021, 104, 705-725.	2.7	1
121	Fractal Basins of Convergence of a Seventh-Order Generalized HÃ©nonâ€“Heiles Potential. Advances in Astronomy, 2021, 2021, 1-11.	0.5	1
122	The intersection surfaces in a 4-dimensional homoclinic/heteroclinic tangle. Nonlinear Dynamics, 2022, 108, 4415-4431.	2.7	1
123	Revealing the dynamics of equilibrium points in a binary system with two radiating bodies. Advances in Space Research, 2022, 70, 2021-2034.	1.2	1
124	Chaos and order in a local barred galaxy model. Astronomische Nachrichten, 2022, 343, .	0.6	1
125	Disks Controlling Chaos in a 3D Dynamical Model for Elliptical Galaxies. Open Astronomy, 2011, 20, .	0.2	0
126	A New Dynamical Parameter for the Study of Sticky Orbits in a 3D Galactic Model. Open Astronomy, 2011, 20, .	0.2	0

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127	How does the Mass Transport in Disk Galaxy Models Influence the Character of Orbits?. Open Astronomy, 2014, 23, .	0.2	0
128	Interplay between Dark Matter and Galactic Structure in Disk and Oblate Elliptical Galaxies. Journal of Astrophysics and Astronomy, 2014, 35, 649-673.	0.4	0
129	How does the Structure of Spherical Dark Matter Haloes Affect the Types of Orbits in Disk Galaxies?. Open Astronomy, 2014, 23, .	0.2	0
130	Revealing the Network of Periodic Orbits in Galaxy Models with a Prolate or an Oblate Dark Matter Halo Component. Open Astronomy, 2016, 25, .	0.2	0
131	Networks of planar symmetric periodic orbits in a barred galaxy model. Astronomische Nachrichten, 2020, 341, 684-702.	0.6	0
132	Classifying Orbits of Low and High Energy Stars in Axisymmetric Disk Galaxies. Open Astronomy, 2016, 25, .	0.2	0
133	Manifold dynamics and periodic orbits in a multiwell potential. Chaos, Solitons and Fractals, 2022, 160, 112208.	2.5	0
134	Orbital and equilibrium dynamics of a multiwell potential. Results in Physics, 2022, 38, 105627.	2.0	0