

Steven Chesley

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8732045/publications.pdf>

Version: 2024-02-01

71
papers

4,138
citations

117625

34
h-index

114465

63
g-index

75
all docs

75
docs citations

75
times ranked

2442
citing authors

#	ARTICLE	IF	CITATIONS
1	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. <i>Space Science Reviews</i> , 2017, 212, 925-984.	8.1	426
2	The impact and recovery of asteroid 2008 TC3. <i>Nature</i> , 2009, 458, 485-488.	27.8	311
3	Orbit and bulk density of the OSIRIS-REx target Asteroid (101955) Bennu. <i>Icarus</i> , 2014, 235, 5-22.	2.5	193
4	Radio Science Results During the NEAR-Shoemaker Spacecraft Rendezvous with Eros. <i>Science</i> , 2000, 289, 2085-2088.	12.6	172
5	The OSIRIS-REx target asteroid (101955) Bennu: Constraints on its physical, geological, and dynamical nature from astronomical observations. <i>Meteoritics and Planetary Science</i> , 2015, 50, 834-849.	1.6	168
6	Quantifying the Risk Posed by Potential Earth Impacts. <i>Icarus</i> , 2002, 159, 423-432.	2.5	141
7	The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. <i>Nature Astronomy</i> , 2019, 3, 352-361.	10.1	132
8	Episodes of particle ejection from the surface of the active asteroid (101955) Bennu. <i>Science</i> , 2019, 366, .	12.6	129
9	Near Earth Asteroids with measurable Yarkovsky effect. <i>Icarus</i> , 2013, 224, 1-13.	2.5	122
10	Yarkovsky Effect on Small Near-Earth Asteroids: Mathematical Formulation and Examples. <i>Icarus</i> , 2000, 148, 118-138.	2.5	118
11	Resonant returns to close approaches: Analytical theory. <i>Astronomy and Astrophysics</i> , 2003, 408, 1179-1196.	5.1	111
12	The Double Asteroid Redirection Test (DART): Planetary Defense Investigations and Requirements. <i>Planetary Science Journal</i> , 2021, 2, 173.	3.6	110
13	The operational environment and rotational acceleration of asteroid (101955) Bennu from OSIRIS-REx observations. <i>Nature Communications</i> , 2019, 10, 1291.	12.8	99
14	ASTROMETRIC MASSES OF 26 ASTEROIDS AND OBSERVATIONS ON ASTEROID POROSITY. <i>Astronomical Journal</i> , 2011, 141, 143.	4.7	94
15	The geophysical environment of Bennu. <i>Icarus</i> , 2016, 276, 116-140.	2.5	92
16	Yarkovsky-driven impact risk analysis for asteroid (99942) Apophis. <i>Icarus</i> , 2013, 224, 192-200.	2.5	85
17	Spitzer Observations of Interstellar Object 1I/â€œOumuamua. <i>Astronomical Journal</i> , 2018, 156, 261.	4.7	80
18	Error statistics of asteroid optical astrometric observations. <i>Icarus</i> , 2003, 166, 248-270.	2.5	73

#	ARTICLE	IF	CITATIONS
19	Treatment of star catalog biases in asteroid astrometric observations. <i>Icarus</i> , 2010, 210, 158-181.	2.5	72
20	Star catalog position and proper motion corrections in asteroid astrometry. <i>Icarus</i> , 2015, 245, 94-111.	2.5	71
21	The internal structure of asteroid (25143) Itokawa as revealed by detection of YORP spin-up. <i>Astronomy and Astrophysics</i> , 2014, 562, A48.	5.1	70
22	Multiple solutions for asteroid orbits: Computational procedure and applications. <i>Astronomy and Astrophysics</i> , 2005, 431, 729-746.	5.1	64
23	Statistical analysis of astrometric errors for the most productive asteroid surveys. <i>Icarus</i> , 2017, 296, 139-149.	2.5	60
24	The Yarkovsky and YORP Effects. , 2015, , .		60
25	Astrometric masses of 21 asteroids, and an integrated asteroid ephemeris. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2008, 100, 27-42.	1.4	58
26	Long term impact risk for (101955) 1999 RQ36. <i>Icarus</i> , 2009, 203, 460-471.	2.5	53
27	Trajectory Estimation for Particles Observed in the Vicinity of (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006363.	3.6	51
28	Heterogeneous mass distribution of the rubble-pile asteroid (101955) Bennu. <i>Science Advances</i> , 2020, 6, .	10.3	50
29	Asteroid close encounters with Earth: risk assessment. <i>Planetary and Space Science</i> , 2000, 48, 945-954.	1.7	44
30	Thermal Fatigue as a Driving Mechanism for Activity on Asteroid Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006325.	3.6	40
31	The Asteroid Identification Problem IV: Attributions. <i>Icarus</i> , 2001, 151, 150-159.	2.5	39
32	Systematic ranging and late warning asteroid impacts. <i>Icarus</i> , 2015, 258, 18-27.	2.5	38
33	A Quantitative Assessment of the Human and Economic Hazard from Impact-generated Tsunami. <i>Natural Hazards</i> , 2006, 38, 355-374.	3.4	36
34	Detection of Rotational Acceleration of Bennu Using HST Light Curve Observations. <i>Geophysical Research Letters</i> , 2019, 46, 1956-1962.	4.0	36
35	CONSTRAINING THE PHYSICAL PROPERTIES OF NEAR-EARTH OBJECT 2009 BD. <i>Astrophysical Journal</i> , 2014, 786, 148.	4.5	35
36	Assessment of the 2880 impact threat from Asteroid (29075) 1950 DA. <i>Icarus</i> , 2014, 229, 321-327.	2.5	33

#	ARTICLE	IF	CITATIONS
37	The Yarkovsky effect for 99942 Apophis. <i>Icarus</i> , 2015, 252, 277-283.	2.5	33
38	High-fidelity Simulations of the Near-Earth Object Search Performance of the Large Synoptic Survey Telescope. <i>Astronomical Journal</i> , 2017, 154, 12.	4.7	31
39	The trajectory and atmospheric impact of asteroid 2014 AA. <i>Icarus</i> , 2016, 274, 327-333.	2.5	29
40	PHYSICAL PROPERTIES OF NEAR-EARTH ASTEROID 2011 MD. <i>Astrophysical Journal Letters</i> , 2014, 789, L22.	8.3	28
41	Ephemeris and hazard assessment for near-Earth asteroid (101955) Bennu based on OSIRIS-REx data. <i>Icarus</i> , 2021, 369, 114594.	2.5	28
42	TRAJECTORY ANALYSIS FOR THE NUCLEUS AND DUST OF COMET C/2013 A1 (SIDING SPRING). <i>Astrophysical Journal</i> , 2014, 790, 114.	4.5	26
43	Simultaneous Mass Determination for Gravitationally Coupled Asteroids. <i>Astronomical Journal</i> , 2017, 154, 76.	4.7	25
44	Photometry of Particles Ejected From Active Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006381.	3.6	23
45	Introduction to the Special Issue: Exploration of the Activity of Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006549.	3.6	23
46	Dynamical Evolution of Simulated Particles Ejected From Asteroid Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006229.	3.6	23
47	Near-Earth Object Orbit Linking with the Large Synoptic Survey Telescope. <i>Astronomical Journal</i> , 2017, 154, 13.	4.7	22
48	Constraints on the near-Earth asteroid obliquity distribution from the Yarkovsky effect. <i>Astronomy and Astrophysics</i> , 2017, 608, A61.	5.1	22
49	Star catalog position and proper motion corrections in asteroid astrometry II: The Gaia era. <i>Icarus</i> , 2020, 339, 113596.	2.5	22
50	Assessing possible mutual orbit period change by shape deformation of Didymos after a kinetic impact in the NASA-led Double Asteroid Redirection Test. <i>Advances in Space Research</i> , 2019, 63, 2515-2534.	2.6	21
51	NEOSURVEY 1: INITIAL RESULTS FROM THE WARM SPITZER EXPLORATION SCIENCE SURVEY OF NEAR-EARTH OBJECT PROPERTIES. <i>Astronomical Journal</i> , 2016, 152, 172.	4.7	20
52	The impact trajectory of asteroid 2008ÂTC3. <i>Icarus</i> , 2017, 294, 218-226.	2.5	20
53	Planetary encounter analysis on the B-plane: a comprehensive formulation. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2019, 131, 1.	1.4	18
54	Nongravitational perturbations and virtual impactors: the case of asteroid (410777) 2009 FD. <i>Astronomy and Astrophysics</i> , 2014, 572, A100.	5.1	15

#	ARTICLE	IF	CITATIONS
55	Internal rubble properties of asteroid (101955) Bennu. <i>Icarus</i> , 2021, 370, 114665.	2.5	15
56	Initial Orbit Determination and Event Reconstruction From Estimation of Particle Trajectories About (101955) Bennu. <i>Earth and Space Science</i> , 2020, 7, e2019EA000937.	2.6	14
57	Development of an observational error model. <i>Icarus</i> , 2011, 212, 438-447.	2.5	13
58	High precision comet trajectory estimates: The Mars flyby of C/2013 A1 (Siding Spring). <i>Icarus</i> , 2016, 266, 279-287.	2.5	13
59	Orbits, Long-Term Predictions, Impact Monitoring. , 2015, , .		13
60	Particle Ejection Contributions to the Rotational Acceleration and Orbit Evolution of Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006284.	3.6	12
61	Very short arc orbit determination: the case of asteroid 2004 FU ₁₆₂ . <i>Proceedings of the International Astronomical Union</i> , 2004, 2004, 255-258.	0.0	9
62	Diameters and Albedos of Three Subkilometer Near-Earth Objects Derived from <i>Spitzer</i> Observations. <i>Astrophysical Journal</i> , 2008, 683, L199-L202.	4.5	9
63	Autonomous Detection of Particles and Tracks in Optical Images. <i>Earth and Space Science</i> , 2020, 7, e2019EA000843.	2.6	9
64	Direct Detections of the Yarkovsky Effect: Status and Outlook. <i>Proceedings of the International Astronomical Union</i> , 2015, 10, 250-258.	0.0	8
65	A Software Roadmap for Solar System Science with the Large Synoptic Survey Telescope. <i>Research Notes of the AAS</i> , 2019, 3, 51.	0.7	6
66	A Novel Approach to Asteroid Impact Monitoring. <i>Astronomical Journal</i> , 2021, 162, 277.	4.7	5
67	Infrared Light Curves of Near-Earth Objects. <i>Astrophysical Journal, Supplement Series</i> , 2018, 238, 22.	7.7	4
68	Development of a Realistic Set of Synthetic Earth Impactor Orbits. , 2019, , .		4
69	Bennu's Natural Sample Delivery Mechanism: Estimating the Flux of Bennuid Meteors at Earth. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006817.	3.6	4
70	Regions of slow apparent motion of close approaching asteroids: The case of 2019 OK. <i>Icarus</i> , 2022, 373, 114735.	2.5	3
71	Recoverability of Known Near-Earth Asteroids. <i>Astronomical Journal</i> , 2020, 160, 250.	4.7	2