Giovanni B Valsecchi

List of Publications by Year
in descending order

153	3,753	186265	144013
papers	citations	28 h-index	57 g-index

158	158	158	2154
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A dynamical analysis of the Taurid Complex: evidence for past orbital convergences. Monthly Notices of the Royal Astronomical Society, 2021, 507, 2568-2591.	4.4	8
2	Luminous efficiency of meteors derived from ablation model after assessment of its range of validity. Astronomy and Astrophysics, 2021, 652, A84.	5.1	5
3	Improving impact monitoring through Line Of Variations densification. Icarus, 2020, 351, 113966.	2.5	4
4	Cavezzo, the first Italian meteorite recovered by the PRISMA fireball network. Orbit, trajectory, and strewn-field. Monthly Notices of the Royal Astronomical Society, 2020, 501, 1215-1227.	4.4	24
5	How an aware usage of the long-term dynamics can improve the long-term situation in the LEO region. Acta Astronautica, 2020, 174, 159-165.	3.2	2
6	A case study of the May 30, 2017, Italian fireball. European Physical Journal Plus, 2020, 135, 1.	2.6	6
7	A frequency portrait of Low Earth Orbits. Celestial Mechanics and Dynamical Astronomy, 2019, 131, 1.	1.4	8
8	Development of a Realistic Set of Synthetic Earth Impactor Orbits. , 2019, , .		4
9	The evolution of the Line of Variations at close encounters: an analytic approach. Celestial Mechanics and Dynamical Astronomy, 2019, 131, 1.	1.4	1
10	Completeness of Impact Monitoring. Icarus, 2019, 321, 647-660.	2.5	10
11	Exploiting dynamical perturbations for the end-of-life disposal of spacecraft in LEO. Astronomy and Computing, 2019, 27, 1-10.	1.7	7
12	Yarkovsky effect detection and updated impact hazard assessment for near-Earth asteroid (410777) 2009 FD. Astronomy and Astrophysics, 2019, 627, L11.	5.1	4
13	Natural highways for end-of-life solutions in the LEO region. Celestial Mechanics and Dynamical Astronomy, 2018, 130, 1.	1.4	16
14	Cartography of the b-plane of a close encounter I: semimajor axes of post-encounter orbits. Celestial Mechanics and Dynamical Astronomy, 2018, 130, 1.	1.4	5
15	Solar radiation pressure resonances in Low Earth Orbits. Monthly Notices of the Royal Astronomical Society, 2018, 473, 2407-2414.	4.4	29
16	Periodic Orbits Close to That of the Moon in Hill's Problem. Frontiers in Astronomy and Space Sciences, 2018, 5, .	2.8	0
17	On the present shape of the Oort cloud and the flux of â€œnewâ€•comets. Icarus, 2017, 292, 218-233.	2.5	19
18	Cometary impact rates on the Moon and planets during the late heavy bombardment. Astronomy and Astrophysics, 2017, 598, A67.	5.1	15

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19	Environmental effect of space debris repositioning. Advances in Space Research, 2017, 60, 28-37.	2.6	7
20	Secular orbital evolution of Jupiter family comets. Astronomy and Astrophysics, 2017, 598, A110.	5.1	19
21	Non-resonant secular dynamics of trans-Neptunian objects perturbed by a distant super-Earth. Celestial Mechanics and Dynamical Astronomy, 2017, 129, 329-358.	1.4	22
22	Distant retrograde orbits and the asteroid hazard. European Physical Journal Plus, 2017, 132, 1.	2.6	13
23	Distribution of long-period comets: comparison between simulations and observations. Astronomy and Astrophysics, 2017, 604, A24.	5.1	8
24	Study and application of the resonant secular dynamics beyond Neptune. Celestial Mechanics and Dynamical Astronomy, 2017, 127, 477-504.	1.4	20
25	Galileo disposal strategy: stability, chaos and predictability. Monthly Notices of the Royal Astronomical Society, 2017, 464, 4063-4076.	4.4	19
26	A numerical investigation on the eccentricity growth of GNSS disposal orbits. Celestial Mechanics and Dynamical Astronomy, 2016, 125, 71-90.	1.4	26
27	Long-term dynamics beyond Neptune: secular models to study the regular motions. Celestial Mechanics and Dynamical Astronomy, 2016, 126, 369-403.	1.4	28
28	The dynamical structure of the MEO region: long-term stability, chaos, and transport. Celestial Mechanics and Dynamical Astronomy, 2016, 124, 335-366.	1.4	61
29	EXECUTIVE COMMITTEE WORKING GROUP: PUBLIC NAMING OF PLANETS AND PLANETARY SATELLITES. Proceedings of the International Astronomical Union, 2015, 11, 539-548.	0.0	1
30	Global risks: Pool knowledge to stem losses from disasters. Nature, 2015, 522, 277-279.	27.8	148
31	The Criticality of Spacecraft Index. Advances in Space Research, 2015, 56, 449-460.	2.6	42
32	An analytical solution for the swing-by problem. Celestial Mechanics and Dynamical Astronomy, 2015, 123, 151-166.	1.4	8
33	Chaos in navigation satellite orbits caused by the perturbed motion of the Moon. Monthly Notices of the Royal Astronomical Society, 2015, 449, 3522-3526.	4.4	52
34	Planetary perturbations for Oort cloud comets: III. Evolution of the cloud and production of centaurs and Halley type comets. Icarus, 2014, 231, 99-109.	2.5	16
35	The geometry of impacts on a synchronous planetary satellite. Celestial Mechanics and Dynamical Astronomy, 2014, 119, 257-270.	1.4	1
36	Effectiveness of GNSS disposal strategies. Acta Astronautica, 2014, 99, 292-302.	3.2	24

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37	Planetary perturbations for Oort cloud comets: II. Implications for the origin of observable comets. Icarus, 2014, 231, 110-121.	2.5	18
38	Monte Carlo methods to calculate impact probabilities. Astronomy and Astrophysics, 2014, 569, A47.	5.1	19
39	Nongravitational perturbations and virtual impactors: the case of asteroid (410777) 2009 FD. Astronomy and Astrophysics, 2014, 572, A100.	5.1	15
40	Ranking in-orbit fragmentations and space objects. Proceedings of the International Astronomical Union, 2014, 9, 118-125.	0.0	0
41	Planetary perturbations for Oort Cloud comets. I. Distributions and dynamics. Icarus, 2013, 222, 20-31.	2.5	28
42	On the possible values of the orbit distance between a near-Earth asteroid and the Earth. Monthly Notices of the Royal Astronomical Society, 2013, 429, 2687-2699.	4.4	12
43	Selection effects in the discovery of NEAs. Proceedings of the International Astronomical Union, 2012, 10, 490-491.	0.0	1
44	The population of bright NEAs. Proceedings of the International Astronomical Union, 2012, 10, 492-493.	0.0	3
45	A space mission to detect imminent Earth impactors. Proceedings of the International Astronomical Union, 2012, 10, 488-489.	0.0	3
46	Whom should we call? Data policy for immediate impactors announcements. Proceedings of the International Astronomical Union, 2012, 10, 484-485.	0.0	0
47	Gaia and the new comets from the Oort cloud. Planetary and Space Science, 2012, 73, 124-129.	1.7	33
48	Efficiency of a wide-area survey in achieving short- and long-term warning for small impactors. Icarus, 2012, 219, 41-47.	2.5	15
49	The last revolution of new comets: the role of stars and their detectability. Astronomy and Astrophysics, 2011, 535, A86.	5.1	23
50	The key role of massive stars in Oort cloud comet dynamics. Icarus, 2011, 214, 334-347.	2.5	36
51	Collision probability: a new analytical derivation. , 2010, , .		0
52	Dynamical Features of the Oort Cloud Comets. Lecture Notes in Physics, 2010, , 401-430.	0.7	3
53	Order statistics andheavy-taileddistributions for planetary perturbations on Oort cloud comets. Astronomy and Astrophysics, 2010, 513, A14.	5.1	0
54	The definition of planet: A dynamicist's point of view. Serbian Astronomical Journal, 2009, , 1-5.	0.6	2

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55	Long term impact risk for (101955) 1999 RQ36RQ36. Icarus, 2009, 203, 460-471.	2.5	53
56	Injection of Oort Cloud comets: the fundamental role of stellar perturbations. Celestial Mechanics and Dynamical Astronomy, 2008, 102, 111-132.	1.4	79
57	Orbital and mission planning constraints for the deflection of NEOs impacting on Earth. Icarus, 2008, 194, 450-462.	2.5	6
58	Physical investigation of the potentially hazardous Asteroid (144898) 2004 VD17. Icarus, 2007, 191, 628-635.	2.5	22
59	The long-term evolution and initial size of comets 46P/Wirtanen and 67P/Churyumov-Gerasimenko. Monthly Notices of the Royal Astronomical Society, 2007, 376, 1399-1406.	4.4	22
60	A New Protocol for the Astrometric Follow-up of Near Earth Asteroids. Earth, Moon and Planets, 2007, 100, 31-41.	0.6	6
61	The Campo Imperatore Near Earth Object Survey (CINEOS). Earth, Moon and Planets, 2007, 100, 259-271.	0.6	3
62	Evaluating the Risk of Impacts and the Efficiency of Risk Reduction. , 2007, , 203-210.		1
63	Methods for the Study of the Dynamics of the Oort Cloud Comets II: Modelling the Galactic Tide. , 2007, , 273-296.		3
64	Methods for the Study of the Dynamics of the Oort Cloud Comets I: Modelling the Stellar Perturbations. , 2007, , 257-272.		0
65	Geometric Conditions for Quasi-Collisions in Ã¶pikâ€™s Theory. , 2006, , 145-158.		6
66	236 years ago.Â.Â.. Proceedings of the International Astronomical Union, 2006, 2, xvii-xx.	0.0	4
67	Low solar elongation searches for NEO: a deep sky test and its implications for survey strategies. Proceedings of the International Astronomical Union, 2006, 2, 291-300.	0.0	1
68	Long-term effects of the Galactic tide on cometary dynamics. Celestial Mechanics and Dynamical Astronomy, 2006, 95, 299-326.	1.4	28
69	Collision risk against space debris in Earth orbits. Celestial Mechanics and Dynamical Astronomy, 2006, 95, 345-356.	1.4	27
70	Possible meteoroid streams associated with (69230) Hermes and 2002 SY50. Earth, Moon and Planets, 2006, 95, 5-10.	0.6	2
71	Algorithms for Stellar Perturbation Computations on Oort Cloud Comets. Earth, Moon and Planets, 2006, 97, 411-434.	0.6	13
72	Long-term effects of the Galactic tide on cometary dynamics. , 2006, , 299-326.		0

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73	Collision risk against space debris in Earth orbits. , 2006, , 345-356.		1
74	Commission 20: Positions and Motions of Minor Planets, Comets and Satellites. Proceedings of the International Astronomical Union, 2005, 1, 153-160.	0.0	0
75	Working Group on Definition of Planet. Proceedings of the International Astronomical Union, 2005, 1, 189-189.	0.0	0
76	Divisions I & III WG: on Near Earth Objects. Proceedings of the International Astronomical Union, 2005, 1, 187-188.	0.0	0
77	Close encounters and collisions of Near-Earth asteroids with the Earth. Comptes Rendus Physique, 2005, 6, 337-344.	0.9	7
78	Nonlinear impact monitoring: line of variation searches for impactors. Icarus, 2005, 173, 362-384.	2.5	102
79	Comparison between Different Models of Galactic Tidal Effects on Cometary Orbits. Celestial Mechanics and Dynamical Astronomy, 2005, 93, 229-262.	1.4	22
80	Possible Meteoroid Streams Associated with (69230) Hermes and 2002 SY50. , 2005, , 5-10.		0
81	Risk of Collision for the Navigation Constellations: The Case of the Forthcoming Galileo. Journal of the Astronautical Sciences, 2004, 52, 455-474.	1.5	5
82	Dynamical and compositional assessment of nearâ€Earth object mission targets. Meteoritics and Planetary Science, 2004, 39, 351-366.	1.6	72
83	The size of collision solutions in orbital elements space. Proceedings of the International Astronomical Union, 2004, 2004, 249-254.	0.0	1
84	From Jupiter-family to Encke-like orbits. Astronomy and Astrophysics, 2004, 422, 369-375.	5.1	11
85	Near Earth Asteroid search and follow-up beyond 22nd magnitude. Astronomy and Astrophysics, 2004, 418, 743-750.	5.1	7
86	Stellar perturbations on the scattered disk. Astronomy and Astrophysics, 2004, 428, 673-681.	5.1	19
87	Eliminating Virtual Impactors with the Very Large Telescope: An ESO Program with the FORS2 Camera. Earth, Moon and Planets, 2003, 93, 239-248.	0.6	4
88	Meteor stream identification: a new approach - III. The limitations of statistics. Monthly Notices of the Royal Astronomical Society, 2003, 344, 665-672.	4.4	28
89	Is the dynamics of Jupiter family comets amenable to Monte Carlo modelling?. Monthly Notices of the Royal Astronomical Society, 2003, 344, 1283-1295.	4.4	3
90	Collision risk: a new method for assessing and visualizing it. Acta Astronautica, 2003, 53, 203-217.	3.2	2

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91	Resonant returns to close approaches: Analytical theory. Astronomy and Astrophysics, 2003, 408, 1179-1196.	5.1	111
92	Close Encounters in Ã–pikâ€™s Theory. Lecture Notes in Physics, 2002, , 145-178.	0.7	4
93	Deflecting NEOs in Route of Collision with the Earth. Icarus, 2002, 159, 417-422.	2.5	44
94	Quantifying the Risk Posed by Potential Earth Impacts. Icarus, 2002, 159, 423-432.	2.5	141
95	Resonant Fly-by Missions to Near Earth Asteroids. Celestial Mechanics and Dynamical Astronomy, 2002, 83, 49-62.	1.4	7
96	Analysis of the Space Debris Impacts Risk on the International Space Station. Celestial Mechanics and Dynamical Astronomy, 2002, 83, 63-76.	1.4	5
97	Asteroid Close Approaches:. , 2002, , 55-70.		37
98	Resonant Fly-by Missions to near Earth Asteroids. , 2002, , 49-62.		1
99	From the Oort cloud to observable short-period comets -- I. The initial stage of cometary capture. Monthly Notices of the Royal Astronomical Society, 2001, 325, 1303-1311.	4.4	7
100	Basic targeting strategies for rendezvous and flyby missions to the near-Earth asteroids. Planetary and Space Science, 2001, 49, 3-22.	1.7	64
101	A Simple Probabilistic Model to Estimate the Population of near-Earth Asteroids. Icarus, 2001, 153, 214-217.	2.5	25
102	The Distribution of Energy Perturbations at Planetary Close Encounters. , 2001, , 83-91.		3
103	Virtual Impactors: Search and Destroy. Icarus, 2000, 145, 12-24.	2.5	47
104	Collision risk for high inclination satellite constellations. Planetary and Space Science, 2000, 48, 319-330.	1.7	12
105	Asteroid close encounters with Earth: risk assessment. Planetary and Space Science, 2000, 48, 945-954.	1.7	44
106	The Distribution of Energy Perturbations at Planetary Close Encounters. Celestial Mechanics and Dynamical Astronomy, 2000, 78, 83-91.	1.4	18
107	Commission 20: Positions and Motions of Minor Planets, Comets and Satellites: (Positions et) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Astronomical Union, 2000, 24, 140-143.	0.0	0
108	Source regions and timescales for the delivery of water to the Earth. Meteoritics and Planetary Science, 2000, 35, 1309-1320.	1.6	701

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109	The Use of Geocentric Variables to Search for Meteoroid Streams and Their Parents. International Astronomical Union Colloquium, 1999, 172, 55-64.	0.1	0
110	Meteoroid stream identification: a new approach -- I. Theory. Monthly Notices of the Royal Astronomical Society, 1999, 304, 743-750.	4.4	118
111	Meteoroid stream identification: a new approach -- II. Application to 865 photographic meteor orbits. Monthly Notices of the Royal Astronomical Society, 1999, 304, 751-758.	4.4	36
112	Risk of collisions for constellation satellites. Nature, 1999, 399, 743-743.	27.8	13
113	On The Orbit Of The Moon. Earth, Moon and Planets, 1999, 85/86, 443-443.	0.6	0
114	Visualizing Impact Probabilities of Space Debris. Space Debris, 1999, 1, 143-158.	0.7	9
115	The Asteroid Identification Problem. Icarus, 1999, 140, 408-423.	2.5	31
116	Large Scattered Planetesimals and the Excitation of the Small Body Belts. Icarus, 1999, 141, 367-387.	2.5	96
117	Planetary Close Encounters: The Engine of Cometary Orbital Evolution. , 1999, , 187-196.		1
118	From Jupiter-family comets to objects in Encke-like orbits. International Astronomical Union Colloquium, 1999, 173, 353-364.	0.1	4
119	The Use of Geocentric Variables to Search for Meteoroid Streams and Their Parents. , 1999, , 55-64.		0
120	Exploiting Earth horseshoe orbits for space missions. Planetary and Space Science, 1998, 46, 1623-1626.	1.7	2
121	Modelling close encounters with Ã–pik's theory. Planetary and Space Science, 1997, 45, 1561-1574.	1.7	7
122	Mapping the Effects of Distant Perturbations on Particleâ€“Planet Interactions. Icarus, 1997, 125, 288-301.	2.5	3
123	Neptune Scattered Planetesimals Could Have Sculpted the Primordial Edgeworthâ€“Kuiper Belt. Icarus, 1997, 128, 464-468.	2.5	55
124	Sources of Planetary Rotation: Mapping Planetesimals' Contributions to Angular Momentum. Icarus, 1997, 129, 384-400.	2.5	4
125	Dynamics in the Jovian System. Astrophysics and Space Science Library, 1997, , 401-410.	2.7	0
126	Small satellite missions to Long-Period Comets: The Hale-Bopp opportunity. Acta Astronautica, 1996, 39, 45-50.	3.2	3

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127	The Dynamics of Objects in Orbits Resembling That of P/Encke. Icarus, 1995, 118, 169-180.	2.5	58
128	Conservation of the Tisserand parameter at close encounters of interplanetary objects with Jupiter. Earth, Moon and Planets, 1995, 68, 71-94.	0.6	21
129	Hunting for Periodic Orbits Close to that of the Moon in the Restricted Circular Three-Body Problem. NATO ASI Series Series B: Physics, 1995, , 231-234.	0.2	0
130	The probable collision of P/Shoemaker-Levy 9 (1993e) with Jupiter in 1994. Planetary and Space Science, 1994, 42, 663-667.	1.7	3
131	Asteroids falling into the Sun. Nature, 1994, 371, 314-317.	27.8	217
132	Significant high number commensurabilities in the main lunar problem II: The occurrence of Saros-like near periodicities. Celestial Mechanics and Dynamical Astronomy, 1993, 57, 341-358.	1.4	3
133	The arrangement in mean elements space of the periodic orbits close to that of the Moon. Celestial Mechanics and Dynamical Astronomy, 1993, 56, 373-380.	1.4	3
134	The Arrangement in Mean Elements Space of the Periodic Orbits Close to that of the Moon. , 1993, , 373-380.		0
135	Significant High Number Commensurabilities in the Main Lunar Problem II: The Occurrence of Saros-Like Near Periodicities. , 1993, , 341-358.		0
136	Dynamics of Comets. Symposium - International Astronomical Union, 1992, 152, 255-268.	0.1	2
137	Planetary accretion rates: Analytical derivation. Icarus, 1991, 94, 98-111.	2.5	71
138	Significant high number commensurabilities in the main lunar problem. I: The Saros as a near-periodicity of the moon's orbit. Celestial Mechanics and Dynamical Astronomy, 1991, 52, 241-261.	1.4	13
139	Significant High Number Commensurabilities in the Main Lunar Problem: A Postscript to a Discovery of the Ancient Chaldeans. NATO ASI Series Series B: Physics, 1991, , 273-282.	0.2	4
140	Outcomes of planetary close encounters: A systematic comparison of methodologies. Icarus, 1988, 75, 1-29.	2.5	63
141	High-order librations of Halley-type comets. , 1988, , 899-905.		8
142	On the Past Orbital History of Comet P/Halley. , 1988, , 319-322.		0
143	On the past orbital history of comet P/Halley. Celestial Mechanics, 1987, 43, 319-322.	0.1	5
144	The Long-Term Evolution Project. Astrophysics and Space Science Library, 1985, , 203-214.	2.7	30

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145	Statistical and Numerical Studies of the Orbital Evolution of Short-Period Comets. Astrophysics and Space Science Library, 1985, , 261-278.	2.7	5
146	The effect of orbital eccentricities on the shape of the hill-type analytical stability surfaces in the general three-body problem. Celestial Mechanics, 1984, 32, 217-230.	0.1	13
147	Low Velocity Encounters of Minor Bodies With the Outer Planets. International Astronomical Union Colloquium, 1983, 74, 377-395.	0.1	0
148	Low Velocity Encounters of Minor Bodies with the Outer Planets. Astrophysics and Space Science Library, 1983, , 377-395.	2.7	5
149	Strong Perturbations at Close Encounters with Jupiter. Astrophysics and Space Science Library, 1982, , 379-384.	2.7	8
150	Some remarks on the capture of Triton and the origin of Pluto. Icarus, 1980, 44, 810-812.	2.5	28
151	Planetary close encounters: Importance of nearly tangent orbits. The Moon and the Planets, 1980, 22, 113-124.	0.5	22
152	Effects of a close encounter with Jupiter on different populations of planet-crossing objects. The Moon and the Planets, 1980, 22, 133-139.	0.5	9
153	Tidal evolution and the Pluto-Charon system. The Moon and the Planets, 1979, 20, 415-421.	0.5	38