William F Bottke

List of Publications by Year
in descending order

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90 papers	8,400 citations	41344 49 h-index	49909 87 g-index
90 all docs	90 docs citations	90 times ranked	4115 citing authors

#	Article	IF	Citations
1	Collisional Evolution of the Main Belt as Recorded by Vesta. , 2022, , 250-261.		1
2	Distinguishing the Origin of Asteroid (16) Psyche. Space Science Reviews, 2022, 218, 17.	8.1	13
3	The ESA Hera Mission: Detailed Characterization of the DART Impact Outcome and of the Binary Asteroid (65803) Didymos. Planetary Science Journal, 2022, 3, 160.	3.6	82
4	Suggestion that recent (â‰ 3ÂGa) flux of kilometer and larger impactors in the Earth-Moon system has not been constant. Icarus, 2021, 355, 114110.	2.5	7
5	Characterization of Exogenic Boulders on the Near-Earth Asteroid (101955) Bennu from OSIRIS-REx Color Images. Planetary Science Journal, 2021, 2, 114.	3.6	5
6	Dark primitive asteroids account for a large share of K/Pg-scale impacts on the Earth. Icarus, 2021, 368, 114621.	2.5	9
7	Spin-driven evolution of asteroids' top-shapes at fast and slow spins seen from (101955) Bennu and (162173) Ryugu. Icarus, 2020, 352, 113946.	2.5	28
8	Meteorite evidence for partial differentiation and protracted accretion of planetesimals. Science Advances, 2020, 6, eaba1303.	10.3	24
9	Very Slow Rotators from Tidally Synchronized Binaries. Astrophysical Journal Letters, 2020, 893, L16.	8.3	9
10	Establishing Earthâ€™s Minimoon Population through Characterization of Asteroid 2020 CD₃. Astronomical Journal, 2020, 160, 277.	4.7	16
11	Search for the H Chondrite Parent Body among the Three Largest S-type Asteroids: (3) Juno, (7) Iris, and (25) Phocaea. Astronomical Journal, 2019, 158, 213.	4.7	13
12	Earth and Moon impact flux increased at the end of the Paleozoic. Science, 2019, 363, 253-257.	12.6	71
13	Debiased orbit and absolute-magnitude distributions for near-Earth objects. Icarus, 2018, 312, 181-207.	2.5	156
14	Evidence for very early migration of the Solar System planets from the Patroclusâ€“Menoetius binary Jupiter Trojan. Nature Astronomy, 2018, 2, 878-882.	10.1	104
15	Nanospacecraft fleet for multi-asteroid touring with electric solar wind sails. , 2018, , .		10
16	Earth's Minimoons: Opportunities for Science and Technology. Frontiers in Astronomy and Space Sciences, 2018, 5, .	2.8	16
17	Rare meteorites common in the Ordovician period. Nature Astronomy, 2017, 1, .	10.1	53
18	Escape of asteroids from the main belt. Astronomy and Astrophysics, 2017, 598, A52.	5.1	77

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19	Modeling the Historical Flux of Planetary Impactors. Astronomical Journal, 2017, 153, 103.	4.7	70
20	A post-accretionary lull in large impacts on earlyÂMars. Nature Geoscience, 2017, 10, 344-348.	12.9	39
21	Forming the Flora Family: Implications for the Near-Earth Asteroid Population and Large Terrestrial Planet Impactors. Astronomical Journal, 2017, 153, 172.	4.7	33
22	The Late Heavy Bombardment. Annual Review of Earth and Planetary Sciences, 2017, 45, 619-647.	11.0	173
23	CAPTURE OF TRANS-NEPTUNIAN PLANETESIMALS IN THE MAIN ASTEROID BELT. Astronomical Journal, 2016, 152, 39.	4.7	100
24	Link between the potentially hazardous Asteroid (86039) 1999 NC43 and the Chelyabinsk meteoroid tenuous. Icarus, 2015, 252, 129-143.	2.5	11
25	Potentially hazardous Asteroid 2007 LE: Compositional link to the black chondrite Rose City and Asteroid (6) Hebe. Icarus, 2015, 250, 430-437.	2.5	3
26	Towards understanding the dynamical evolution of asteroid 25143 Itokawa: constraints from sample analysis. Earth, Planets and Space, 2015, 67, .	2.5	8
27	Growing the terrestrial planets from the gradual accumulation of submeter-sized objects. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14180-14185.	7.1	142
28	In search of the source of asteroid (101955) Bennu: Applications of the stochastic YORP model. Icarus, 2015, 247, 191-217.	2.5	125
29	The case of the missing Ceres family. Icarus, 2014, 243, 429-439.	2.5	37
30	Orbit and bulk density of the OSIRIS-REx target Asteroid (101955) Bennu. Icarus, 2014, 235, 5-22.	2.5	193
31	Olivine-dominated asteroids: Mineralogy and origin. Icarus, 2014, 228, 288-300.	2.5	52
32	The oxygen isotope composition of diogenites: Evidence for early global melting on a single, compositionally diverse, HED parent body. Earth and Planetary Science Letters, 2014, 390, 165-174.	4.4	50
33	Constraining the cratering chronology of Vesta. Planetary and Space Science, 2014, 103, 131-142.	1.7	41
34	Ages of large lunar impact craters and implications for bombardment during the Moonâ€™s middle age. Icarus, 2013, 225, 325-341.	2.5	50
35	Black rain: The burial of the Galilean satellites in irregular satellite debris. Icarus, 2013, 223, 775-795.	2.5	30
36	Introducing the Eulalia and new Polana asteroid families: Re-assessing primitive asteroid families in the inner Main Belt. Icarus, 2013, 225, 283-297.	2.5	105

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37	An Archaean heavy bombardment from a destabilized extension of the asteroid belt. Nature, 2012, 485, 78-81.	27.8	345
38	The onset of the lunar cataclysm as recorded in its ancient crater populations. Earth and Planetary Science Letters, 2012, 325-326, 27-38.	4.4	103
39	Delivery of dark material to Vesta via carbonaceous chondritic impacts. Icarus, 2012, 221, 544-559.	2.5	152
40	A comparison between rubble-pile and monolithic targets in impact simulations: Application to asteroid satellites and family size distributions. Icarus, 2012, 219, 57-76.	2.5	45
41	Impact histories of angrites, eucrites, and their parent bodies. Meteoritics and Planetary Science, 2011, 46, 1878-1887.	1.6	29
42	DYNAMICAL MODEL FOR THE ZODIACAL CLOUD AND SPORADIC METEORS. Astrophysical Journal, 2011, 743, 129.	4.5	129
43	OBSERVED BINARY FRACTION SETS LIMITS ON THE EXTENT OF COLLISIONAL GRINDING IN THE KUIPER BELT. Astronomical Journal, 2011, 141, 159.	4.7	50
44	SEARCHING FOR TROJAN ASTEROIDS IN THE HD 209458 SYSTEM: SPACE-BASEDMOSTPHOTOMETRY AND DYNAMICAL MODELING. Astrophysical Journal, 2010, 716, 315-323.	4.5	32
45	COMETARY ORIGIN OF THE ZODIACAL CLOUD AND CARBONACEOUS MICROMETEORITES. IMPLICATIONS FOR HOT DEBRIS DISKS. Astrophysical Journal, 2010, 713, 816-836.	4.5	422
46	Towards initial mass functions for asteroids and Kuiper Belt Objects. Icarus, 2010, 208, 518-538.	2.5	144
47	Do planetary encounters reset surfaces of near Earth asteroids?. Icarus, 2010, 209, 510-519.	2.5	49
48	THE IRREGULAR SATELLITES: THE MOST COLLISIONALLY EVOLVED POPULATIONS IN THE SOLAR SYSTEM. Astronomical Journal, 2010, 139, 994-1014.	4.7	103
49	COLLISIONALLY BORN FAMILY ABOUT 87 SYLVIA. Astronomical Journal, 2010, 139, 2148-2158.	4.7	18
50	Stochastic Late Accretion to Earth, the Moon, and Mars. Science, 2010, 330, 1527-1530.	12.6	194
51	Almahata Sitta (=asteroid 2008 TC₃) and the search for the ureilite parent body. Meteoritics and Planetary Science, 2010, 45, 1590-1617.	1.6	44
52	Asteroids were born big. Icarus, 2009, 204, 558-573.	2.5	424
53	Contamination of the asteroid belt by primordial trans-Neptunian objects. Nature, 2009, 460, 364-366.	27.8	250
54	Asteroidal source of L chondrite meteorites. Icarus, 2009, 200, 698-701.	2.5	103

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55	Considerations on the magnitude distributions of the Kuiper belt and of the Jupiter Trojans. Icarus, 2009, 202, 310-315.	2.5	55
56	Analysis of the Hungaria asteroid population. Icarus, 2009, 204, 172-182.	2.5	58
57	An Anomalous Basaltic Meteorite from the Innermost Main Belt. Science, 2009, 325, 1525-1527.	12.6	86
58	On the origin of shocked and unshocked CM clasts in Hâ€chondrite regolith breccias. Meteoritics and Planetary Science, 2009, 44, 701-724.	1.6	42
59	How to make a flying saucer. Nature, 2008, 454, 173-174.	27.8	2
60	ON A SCATTERED-DISK ORIGIN FOR THE 2003 EL₆₁COLLISIONAL FAMILYâ€"AN EXAMPLE OF THE IMPORTANCE OF COLLISIONS ON THE DYNAMICS OF SMALL BODIES. Astronomical Journal, 2008, 136, 1079-1088.	4.7	51
61	Origin of the Near-Ecliptic Circumsolar Dust Band. Astrophysical Journal, 2008, 679, L143-L146.	4.5	76
62	12. Oxygen and Asteroids. , 2008, , 273-344.		4
63	The primordial excitation and clearing of the asteroid beltâ€"Revisited. Icarus, 2007, 191, 434-452.	2.5	151
64	Spun in the sun. Nature, 2007, 446, 382-383.	27.8	1
65	An asteroid breakup 160â€‰Myr ago as the probable source of the K/T impactor. Nature, 2007, 449, 48-53.	27.8	156
66	Sizeâ€"frequency distributions of fragments from SPH/N-body simulations of asteroid impacts: Comparison with observed asteroid families. Icarus, 2007, 186, 498-516.	2.5	169
67	Express delivery of fossil meteorites from the inner asteroid belt to Sweden. Icarus, 2007, 188, 400-413.	2.5	44
68	Can planetesimals left over from terrestrial planet formation produce the lunar Late Heavy Bombardment?. Icarus, 2007, 190, 203-223.	2.5	119
69	THE YARKOVSKY AND YORP EFFECTS: Implications for Asteroid Dynamics. Annual Review of Earth and Planetary Sciences, 2006, 34, 157-191.	11.0	573
70	Candidates for Asteroid Dust Trails. Astronomical Journal, 2006, 132, 582-595.	4.7	17
71	A late Miocene dust shower from the break-up of an asteroid in the main belt. Nature, 2006, 439, 295-297.	27.8	90
72	Iron meteorites as remnants of planetesimals formed in the terrestrial planet region. Nature, 2006, 439, 821-824.	27.8	249

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73	Karin cluster formation by asteroid impact. Icarus, 2006, 183, 296-311.	2.5	63
74	The Breakup of a Main-Belt Asteroid 450 Thousand Years Ago. Science, 2006, 312, 1490-1490.	12.6	71
75	Origin and dynamics of Near Earth Objects. Comptes Rendus Physique, 2005, 6, 291-301.	0.9	18
76	The formation of asteroid satellites in large impacts: results from numerical simulations. Icarus, 2004, 170, 243-257.	2.5	109
77	The formation of asteroid satellites in large impacts: results from numerical simulations. Icarus, 2004, 167, 382-396.	2.5	51
78	Detection of the Yarkovsky effect for main-belt asteroids. Icarus, 2004, 170, 324-342.	2.5	83
79	Doublet craters on Venus. Icarus, 2003, 165, 90-100.	2.5	34
80	The vector alignments of asteroid spins by thermal torques. Nature, 2003, 425, 147-151.	27.8	182
81	Recent Origin of the Solar System Dust Bands. Astrophysical Journal, 2003, 591, 486-497.	4.5	150
82	The recent breakup of an asteroid in the main-belt region. Nature, 2002, 417, 720-721.	27.8	243
83	The Depletion of the Putative Vulcanoid Population via the Yarkovsky Effect. Icarus, 2000, 148, 147-152.	2.5	22
84	Tidal Distortion and Disruption of Earth-Crossing Asteroids. Icarus, 1998, 134, 47-76.	2.5	191
85	Production of Tunguska-sized bodies by Earth's tidal forces. Planetary and Space Science, 1998, 46, 311-322.	1.7	11
86	Can Tidal Disruption of Asteroids Make Crater Chains on the Earth and Moon?. Icarus, 1997, 126, 470-474.	2.5	43
87	Collisional and Dynamical History of Ida. Icarus, 1996, 120, 106-118.	2.5	78
88	Formation of asteroid satellites and doublet craters by planetary tidal forces. Nature, 1996, 381, 51-53.	27.8	73
89	Collisional History of Gaspra. Icarus, 1994, 107, 84-97.	2.5	82
90	Velocity Distributions among Colliding Asteroids. Icarus, 1994, 107, 255-268.	2.5	361