Holger Baumgardt

List of Publications by Year
in descending order

115	8,679	38742	43889
papers	citations	50 h-index	91 g-index

115	115	115	4116
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamical evolution of star clusters in tidal fields. Monthly Notices of the Royal Astronomical Society, 2003, 340, 227-246.	4.4	588
2	Formation of massive black holes through runaway collisions in dense young star clusters. Nature, 2004, 428, 724-726.	27.8	554
3	A catalogue of masses, structural parameters, and velocity dispersion profiles of 112 Milky Way globular clusters. Monthly Notices of the Royal Astronomical Society, 2018, 478, 1520-1557.	4.4	333
4	A comprehensive set of simulations studying the influence of gas expulsion on star cluster evolution. Monthly Notices of the Royal Astronomical Society, 2007, 380, 1589-1598.	4.4	308
5	Mean proper motions, space orbits, and velocity dispersion profiles of Galactic globular clusters derived fromGaiaDR2 data. Monthly Notices of the Royal Astronomical Society, 2019, 482, 5138-5155.	4.4	302
6	Dynamical Formation of Close Binary Systems in Globular Clusters. Astrophysical Journal, 2003, 591, L131-L134.	4.5	271
7	Star cluster disruption by giant molecular clouds. Monthly Notices of the Royal Astronomical Society, 2006, 371, 793-804.	4.4	211
8	Gaia EDR3 view on galactic globular clusters. Monthly Notices of the Royal Astronomical Society, 2021, 505, 5978-6002.	4.4	206
9	A supermassive black hole in an ultra-compact dwarf galaxy. Nature, 2014, 513, 398-400.	27.8	203
10	Stellar-mass black holes in star clusters: implications for gravitational wave radiation. Monthly Notices of the Royal Astronomical Society, 2010, 402, 371-380.	4.4	198
11	A Multimass Velocity Dispersion Model of 47 Tucanae Indicates No Evidence for an Intermediate-mass Black Hole. Astrophysical Journal, 2019, 875, 1.	4.5	192
12	Massive Black Holes in Star Clusters. II. Realistic Cluster Models. Astrophysical Journal, 2004, 613, 1143-1156.	4.5	161
13	Accurate distances to Galactic globular clusters through a combination of Gaia EDR3, HST, and literature data. Monthly Notices of the Royal Astronomical Society, 2021, 505, 5957-5977.	4.4	159
14	N-body modelling of globular clusters: masses, mass-to-light ratios and intermediate-mass black holes. Monthly Notices of the Royal Astronomical Society, 2017, 464, 2174-2202.	4.4	157
15	An intermediate-mass black hole in the centre of the globular cluster 47 Tucanae. Nature, 2017, 542, 203-205.	27.8	149
16	Mass segregation and fractal substructure in young massive clusters - I. The McLuster code and method calibration. Monthly Notices of the Royal Astronomical Society, 2011, 417, 2300-2317.	4.4	143
17	Scaling of N-body calculations. Monthly Notices of the Royal Astronomical Society, 2001, 325, 1323-1331.	4.4	141
18	A Dynamical Model for the Globular Cluster G1. Astrophysical Journal, 2003, 589, L25-L28.	4.5	137

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19	The nature of UCDs: Internal dynamics from an expanded sample and homogeneous database. Astronomy and Astrophysics, 2008, 487, 921-935.	5.1	132
20	On the Central Structure of M15. Astrophysical Journal, 2003, 582, L21-L24.	4.5	128
21	The influence of residual gas expulsion on the evolution of the Galactic globular cluster system and the origin of the Population II halo. Monthly Notices of the Royal Astronomical Society, 2008, 384, 1231-1241.	4.4	119
22	Which Globular Clusters Contain Intermediateâ€Mass Black Holes?. Astrophysical Journal, 2005, 620, 238-243.	4.5	117
23	A top-heavy stellar initial mass function in starbursts as an explanation for the high mass-to-light ratios of ultra-compact dwarf galaxies. Monthly Notices of the Royal Astronomical Society, 2009, 394, 1529-1543.	4.4	116
24	Massive Black Holes in Star Clusters. I. Equalâ€Mass Clusters. Astrophysical Journal, 2004, 613, 1133-1142.	4.5	109
25	Globular cluster systems in nearby dwarf galaxies - II. Nuclear star clusters and their relation to massive Galactic globular clusters. Monthly Notices of the Royal Astronomical Society, 2009, 396, 1075-1085.	4.4	105
26	Ultra-compact dwarf galaxy formation by tidal stripping of nucleated dwarf galaxies. Monthly Notices of the Royal Astronomical Society, 2013, 433, 1997-2005.	4.4	102
27	The star cluster formation history of the LMC. Monthly Notices of the Royal Astronomical Society, 2013, 430, 676-685.	4.4	98
28	Peculiarities in velocity dispersion and surface density profiles of star clusters. Monthly Notices of the Royal Astronomical Society, 0, 407, 2241-2260.	4.4	97
29	A luminous X-ray outburst from an intermediate-mass black hole in an off-centre star cluster. Nature Astronomy, 2018, 2, 656-661.	10.1	96
30	Evidence for Primordial Mass Segregation in Globular Clusters. Astrophysical Journal, 2008, 685, 247-253.	4.5	94
31	VERY LARGE TELESCOPE KINEMATICS FOR OMEGA CENTAURI: FURTHER SUPPORT FOR A CENTRAL BLACK HOLE. Astrophysical Journal Letters, 2010, 719, L60-L64.	8.3	91
32	Dynamical masses of ultra-compact dwarf galaxies in Fornax. Astronomy and Astrophysics, 2007, 463, 119-130.	5.1	86
33	Limits on intermediate-mass black holes in six Galactic globular clusters with integral-field spectroscopy. Astronomy and Astrophysics, 2013, 552, A49.	5.1	85
34	On the massâ€"radius relation of hot stellar systems. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 408, L16-L20.	3.3	83
35	The velocity dispersion and mass-to-light ratio of the remote halo globular cluster NGCâ€ƒ2419. Monthly Notices of the Royal Astronomical Society, 2009, 396, 2051-2060.	4.4	81
36	On central black holes in ultra-compact dwarf galaxies. Astronomy and Astrophysics, 2013, 558, A14.	5.1	80

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37	Evidence for two populations of Galactic globular clusters from the ratio of their half-mass to Jacobi radii. Monthly Notices of the Royal Astronomical Society, 2010, 401, 1832-1838.	4.4	78
38	Contribution of stripped nuclear clusters to globular cluster and ultracompact dwarf galaxy populations. Monthly Notices of the Royal Astronomical Society, 2014, 444, 3670-3683.	4.4	78
39	Long-term evolution of isolated N-body systems. Monthly Notices of the Royal Astronomical Society, 2002, 336, 1069-1081.	4.4	76
40	Kinematic signature of an intermediate-mass black hole in the globular cluster NGC 6388. Astronomy and Astrophysics, 2011, 533, A36.	5.1	76
41	Detection of Supermassive Black Holes in Two Virgo Ultracompact Dwarf Galaxies. Astrophysical Journal, 2017, 839, 72.	4.5	75
42	Multiple populations in globular clusters and their parent galaxies. Monthly Notices of the Royal Astronomical Society, 2020, 491, 515-531.	4.4	66
43	TESTING FUNDAMENTAL PHYSICS WITH DISTANT STAR CLUSTERS: ANALYSIS OF OBSERVATIONAL DATA ON PALOMAR 14, ,. Astronomical Journal, 2009, 137, 4586-4596.	4.7	65
44	Direct N-body simulations of globular clusters - I. Palomar 14. Monthly Notices of the Royal Astronomical Society, 2011, 411, 1989-2001.	4.4	65
45	The eye of Gaia on globular clusters kinematics: internal rotation. Monthly Notices of the Royal Astronomical Society, 2019, 485, 1460-1476.	4.4	65
46	The distribution of stars around the Milky Wayâ€™s central black hole. Astronomy and Astrophysics, 2018, 609, A28.	5.1	63
47	The global mass functions of 35 Galactic globular clusters: I. Observational data and correlations with cluster parameters. Monthly Notices of the Royal Astronomical Society, 2017, 471, 3668-3679.	4.4	60
48	The Black Hole in the Most Massive Ultracompact Dwarf Galaxy M59-UCD3. Astrophysical Journal, 2018, 858, 102.	4.5	59
49	Evolution of two stellar populations in globular clusters. Astronomy and Astrophysics, 2010, 516, A73.	5.1	56
50	The evolution of two stellar populations in globular clusters. Astronomy and Astrophysics, 2008, 492, 101-109.	5.1	54
51	A 3.5 million Solar masses black hole in the centre of the ultracompact dwarf galaxy fornax UCD3. Monthly Notices of the Royal Astronomical Society, 2018, 477, 4856-4865.	4.4	53
52	Tidal disruption rate of stars by supermassive black holes obtained by direct N-body simulations. Monthly Notices of the Royal Astronomical Society, 2011, 418, 1308-1324.	4.4	50
53	No evidence for intermediate-mass black holes in the globular clusters Ï‰ Cen and NGC 6624. Monthly Notices of the Royal Astronomical Society, 2019, 488, 5340-5351.	4.4	50
54	The influence of gas expulsion and initial mass segregation on the stellar mass function of globular star clusters. Monthly Notices of the Royal Astronomical Society, 2008, 386, 2047-2054.	4.4	48

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55	The Dynamical Distance to M15: Estimates of the Clusterâ€™s Age and Mass and of the Absolute Magnitude of Its RR Lyrae Stars. Astrophysical Journal, 2004, 602, 264-270.	4.5	47
56	High mass-to-light ratios of ultra-compact dwarf galaxies - evidence for dark matter?. Monthly Notices of the Royal Astronomical Society, 2008, 391, 942-948.	4.4	47
57	RADIAL DISTRIBUTIONS OF SUB-POPULATIONS IN THE GLOBULAR CLUSTER M15: A MORE CENTRALLY CONCENTRATED PRIMORDIAL POPULATION. Astrophysical Journal, 2015, 804, 71.	4.5	46
58	Spatially resolved kinematics of an ultracompact dwarf galaxy. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 414, L70-L74.	3.3	42
59	The stellar mass function, binary content and radial structure of the open cluster Praesepe derived from PPMXL and SDSS data. Monthly Notices of the Royal Astronomical Society, 2013, 434, 3236-3245.	4.4	41
60	N-body simulations of globular clusters in tidal fields: Effects of intermediate-mass black holes. Astronomy and Astrophysics, 2013, 558, A117.	5.1	40
61	Diffuse Galactic antimatter from faint thermonuclear supernovae in old stellar populations. Nature Astronomy, 2017, 1, .	10.1	40
62	Constraining the initial mass function of stars in the Galactic Centre. Monthly Notices of the Royal Astronomical Society, 2010, 402, 519-525.	4.4	39
63	Indication for an intermediate-mass black hole in the globular cluster NGC 5286 from kinematics. Astronomy and Astrophysics, 2013, 554, A63.	5.1	37
64	Absolute -band magnitudes and mass-to-light ratios of Galactic globular clusters. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	37
65	The main sequence of star clusters. Monthly Notices of the Royal Astronomical Society, 2008, 389, 889-902.	4.4	36
66	The velocity dispersion and mass function of the outer halo globular cluster Palomar 4. Monthly Notices of the Royal Astronomical Society, 2012, 423, 2917-2932.	4.4	36
67	Biases in the determination of dynamical parameters of star clusters: today and in the Gaia era. Monthly Notices of the Royal Astronomical Society, 2015, 451, 2185-2197.	4.4	36
68	Parameters of core collapse. Monthly Notices of the Royal Astronomical Society, 2003, 341, 247-250.	4.4	35
69	Direct N-body simulations of globular clusters â€“ II. PalomarÂ4. Monthly Notices of the Royal Astronomical Society, 2014, 440, 3172-3183.	4.4	35
70	Constraining ultracompact dwarf galaxy formation with galaxy clusters in the local universe. Monthly Notices of the Royal Astronomical Society, 2016, 458, 2492-2508.	4.4	35
71	The Impact of Stripped Nuclei on the Supermassive Black Hole Number Density in the Local Universe. Astrophysical Journal, 2019, 871, 159.	4.5	35
72	A DynamicalN-body model for the central region ofÏ‰Centauri. Astronomy and Astrophysics, 2012, 538, A19.	5.1	33

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73	The global mass functions of 35 Galactic globular clusters â€“ II. Clues on the initial mass function and black hole retention fraction. Monthly Notices of the Royal Astronomical Society, 2017, 472, 744-750.	4.4	33
74	Three-component Kinematics of Multiple Stellar Populations in Globular Clusters with Gaia and VLT. Astrophysical Journal, 2020, 889, 18.	4.5	33
75	Re-evaluation of the central velocity-dispersion profile in NGC 6388. Astronomy and Astrophysics, 2015, 581, A1.	5.1	32
76	A new method to create initially mass segregated star clusters in virial equilibrium. Monthly Notices of the Royal Astronomical Society, 2008, 385, 1673-1680.	4.4	31
77	A prescription and fast code for the long-term evolution of star clusters â€“ III. Unequal masses and stellar evolution. Monthly Notices of the Royal Astronomical Society, 2014, 442, 1265-1285.	4.4	31
78	Central kinematics of the globular cluster NGCÂ2808: upper limit on the mass of an intermediate-mass black hole. Astronomy and Astrophysics, 2012, 542, A129.	5.1	29
79	A SEARCH FOR AN INTERMEDIATE-MASS BLACK HOLE IN THE CORE OF THE GLOBULAR CLUSTER NGC 6266. Astrophysical Journal, 2012, 745, 175.	4.5	28
80	Dynamical constraints on the origin of multiple stellar populations in globular clusters. Monthly Notices of the Royal Astronomical Society, 2015, 452, 924-936.	4.4	28
81	Upper Limits on the Presence of Central Massive Black Holes in Two Ultra-compact Dwarf Galaxies in Centaurus A. Astrophysical Journal, 2018, 858, 20.	4.5	28
82	Mass modelling globular clusters in theGaiaera: a method comparison using mock data from anN-body simulation of Mâ€‰‰4. Monthly Notices of the Royal Astronomical Society, 2019, 483, 1400-1425.	4.4	26
83	The evolution of the global stellar mass function of star clusters: an analytic description. Monthly Notices of the Royal Astronomical Society, 2013, 433, 1378-1388.	4.4	24
84	High-velocity stars in the cores of globular clusters: the illustrative case of NGCâ€‰2808. Astronomy and Astrophysics, 2012, 543, A82.	5.1	23
85	TESTING PHOTOMETRIC DIAGNOSTICS FOR THE DYNAMICAL STATE AND POSSIBLE INTERMEDIATE-MASS BLACK HOLE PRESENCE IN GLOBULAR CLUSTERS. Astrophysical Journal, 2011, 743, 52.	4.5	21
86	Possible smoking-gun evidence for initial mass segregation in re-virialized post-gas expulsion globular clusters. Monthly Notices of the Royal Astronomical Society, 2015, 454, 3872-3885.	4.4	21
87	Probing the boundary between star clusters and dwarf galaxies: A MUSE view on the dynamics of Crater/LaevensÂI. Monthly Notices of the Royal Astronomical Society, 2016, 460, 3384-3397.	4.4	21
88	The dynamics of the globular cluster NGCÂ3201 out to the Jacobi radius. Monthly Notices of the Royal Astronomical Society, 2021, 502, 4513-4525.	4.4	20
89	The binary fraction and mass segregation in Alpha Persei open cluster. Monthly Notices of the Royal Astronomical Society, 2016, 457, 1028-1036.	4.4	17
90	Radiation pressure limits on the star formation efficiency and surface density of compact stellar systems. Monthly Notices of the Royal Astronomical Society, 2018, 481, 4895-4906.	4.4	17

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91	The WAGGS project-III. Discrepant mass-to-light ratios of Galactic globular clusters at high metallicity. Monthly Notices of the Royal Astronomical Society, 2020, 492, 3859-3871.	4.4	14
92	Galactic Globular Clusters: A new catalog of masses, structural parameters, velocity dispersion profiles, proper motions and space orbits. Proceedings of the International Astronomical Union, 2019, 14, 451-454.	0.0	13
93	New insight into the stellar mass function of Galactic globular clusters. Monthly Notices of the Royal Astronomical Society, 2020, 494, 4226-4243.	4.4	13
94	The mass function and dynamical mass of young star clusters: why their initial crossing-time matters crucially. Monthly Notices of the Royal Astronomical Society, 2012, 427, 1940-1952.	4.4	11
95	The black hole retention fraction in star clusters. Astronomy and Astrophysics, 2018, 617, A69.	5.1	11
96	Hubble Space Telescope photometry of multiple stellar populations in the inner parts of NGC 2419. Astronomy and Astrophysics, 2019, 624, A25.	5.1	10
97	Stellar mass segregation as separating classifier between globular clusters and ultrafaint dwarf galaxies. Monthly Notices of the Royal Astronomical Society, 2022, 510, 3531-3545.	4.4	10
98	Limits on the significant mass-loss scenario based on the globular clusters of the Fornax dwarf spheroidal galaxy. Monthly Notices of the Royal Astronomical Society, 2016, 457, 479-486.	4.4	9
99	Direct N-body simulations of globular clusters â€“ III. PalomarÂ4 on an eccentric orbit. Monthly Notices of the Royal Astronomical Society, 0, , stx130.	4.4	8
100	The Milky Way like galaxy NGCâ€‰6384 and its nuclear star cluster at high NIR spatial resolution using LBT/ARGOS commissioning data. Monthly Notices of the Royal Astronomical Society, 2019, 484, 3356-3375.	4.4	8
101	Kinematics of dwarf galaxies in gas-rich groups, and the survival and detectability of tidal dwarf galaxies. Monthly Notices of the Royal Astronomical Society, 2016, 455, 2508-2528.	4.4	7
102	Contribution of stripped nuclei to the ultracompact dwarf galaxy population in the Virgo cluster. Monthly Notices of the Royal Astronomical Society, 2020, 501, 1852-1867.	4.4	6
103	First direct dynamical detection of a dual super-massive black hole system at sub-kpc separation. Astronomy and Astrophysics, 0, , .	5.1	6
104	Central kinematics of the Galactic globular cluster M80. Monthly Notices of the Royal Astronomical Society, 2021, 507, 4788-4803.	4.4	5
105	Ultra-Compact Dwarf Galaxies â€“ More Massive than Allowed?. Proceedings of the International Astronomical Union, 2007, 3, 427-428.	0.0	4
106	Unveiling Gargantua: A new search strategy for the most massive central cluster black holes. Astronomy and Astrophysics, 2016, 585, A153.	5.1	3
107	Testing the tidal stripping scenario of ultracompact dwarf galaxy formation by using internal properties. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2459-2470.	4.4	3
108	Towards realistic modelling of the astrometric capabilities of MCAO systems: detecting an intermediate-mass black hole with MAVIS. Monthly Notices of the Royal Astronomical Society, 2021, 507, 2192-2207.	4.4	3

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109	Accelerating NBODY6 with a graphics processing unit-enabled Particle-Particle Particle-Tree scheme. Monthly Notices of the Royal Astronomical Society, 2021, 509, 2075-2083.	4.4	3
110	Intermediate-mass black holes in globular clusters: observations and simulations. Proceedings of the International Astronomical Union, 2014, 10, 181-188.	0.0	2
111	On the presence of intermediate black holes in three globular clusters. Proceedings of the International Astronomical Union, 2019, 14, 400-403.	0.0	1
112	Intermediate-mass black holes in globular clusters: observations and simulations - Update. Proceedings of the International Astronomical Union, 2015, 12, 240-245.	0.0	0
113	Dynamical Evolution of Outer-Halo Globular Clusters. Proceedings of the International Astronomical Union, 2015, 12, 257-258.	0.0	0
114	The eye of Gaia on globular cluster kinematics: Internal rotation. Proceedings of the International Astronomical Union, 2019, 14, 516-519.	0.0	0
115	Dynamical Evolution of Stellar Systems. EAS Publications Series, 2016, 80-81, 39-72.	0.3	0