

Piet Hut

List of Publications by Year in descending order

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81
papers

8,287
citations

109137

35
h-index

95083

68
g-index

83
all docs

83
docs citations

83
times ranked

4552
citing authors

#	ARTICLE	IF	CITATIONS
1	Hidden Concepts in the History and Philosophy of Origins-of-Life Studies: a Workshop Report. <i>Origins of Life and Evolution of Biospheres</i> , 2019, 49, 111-145.	0.8	19
2	Few-body modes of binary formation in core collapse. <i>Astronomy and Computing</i> , 2013, 3-4, 35-49.	0.8	4
3	Unexpected formation modes of the first hard binary in core collapse. <i>New Astronomy</i> , 2012, 17, 272-280.	0.8	19
4	PSDF: Particle Stream Data Format for N-body simulations. <i>New Astronomy</i> , 2012, 17, 520-523.	0.8	5
5	Dense stellar systems as laboratories for fundamental physics. <i>New Astronomy Reviews</i> , 2010, 54, 163-172.	5.2	4
6	A multiphysics and multiscale software environment for modeling astrophysical systems. <i>New Astronomy</i> , 2009, 14, 369-378.	0.8	146
7	Predictions for triple stars with and without a pulsar in star clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2008, 387, 815-824.	1.6	9
8	A Multiphysics and Multiscale Software Environment for Modeling Astrophysical Systems. <i>Lecture Notes in Computer Science</i> , 2008, , 207-216.	1.0	6
9	The Core Radius of a Star Cluster Containing a Massive Black Hole. <i>Publication of the Astronomical Society of Japan</i> , 2007, 59, L11-L14.	1.0	29
10	Virtual Laboratories and Virtual Worlds. <i>Proceedings of the International Astronomical Union</i> , 2007, 3, 447-456.	0.0	8
11	The Ecology of Star Clusters and Intermediate-Mass Black Holes in the Galactic Bulge. <i>Astrophysical Journal</i> , 2006, 641, 319-326.	1.6	113
12	Dynamical Formation of Close Binaries in Globular Clusters: Cataclysmic Variables. <i>Astrophysical Journal</i> , 2006, 646, L143-L146.	1.6	125
13	Joint Discussion 6 Neutron stars and black holes in star clusters. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 215-243.	0.0	2
14	Modeling dense stellar systems: background. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 422-423.	0.0	0
15	A time-symmetric block time-step algorithm for N-body simulations. <i>New Astronomy</i> , 2006, 12, 124-133.	0.8	25
16	Performance tuning of N-body codes on modern microprocessors: I. Direct integration with a hermite scheme on x86_64 architecture. <i>New Astronomy</i> , 2006, 12, 169-181.	0.8	44
17	Virtual Laboratories. <i>Progress of Theoretical Physics Supplement</i> , 2006, 164, 38-53.	0.2	11
18	Which Globular Clusters Contain Intermediate-Mass Black Holes?. <i>Astrophysical Journal</i> , 2005, 620, 238-243.	1.6	117

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19	MODEST: Modeling Stellar Evolution and (Hydro)dynamics. Highlights of Astronomy, 2005, 13, 335-338.	0.0	0
20	Star cluster ecology – V. Dissection of an open star cluster: spectroscopy. Monthly Notices of the Royal Astronomical Society, 2004, 351, 473-486.	1.6	18
21	The formation of Kuiper-belt binaries through exchange reactions. Nature, 2004, 427, 518-520.	13.7	83
22	Formation of massive black holes through runaway collisions in dense young star clusters. Nature, 2004, 428, 724-726.	13.7	554
23	MODEST-2: a summary. New Astronomy, 2003, 8, 605-628.	0.8	31
24	MODEST-1: Integrating stellar evolution and stellar dynamics. New Astronomy, 2003, 8, 337-370.	0.8	34
25	Dynamical Formation of Close Binary Systems in Globular Clusters. Astrophysical Journal, 2003, 591, L131-L134.	1.6	271
26	A Dynamical Model for the Globular Cluster G1. Astrophysical Journal, 2003, 589, L25-L28.	1.6	137
27	The Starlab Environment for Dense Stellar Systems. Symposium - International Astronomical Union, 2003, 208, 331-342.	0.1	5
28	On the Central Structure of M15. Astrophysical Journal, 2003, 582, L21-L24.	1.6	128
29	The Lives and Deaths of Star Clusters near the Galactic Center. Astrophysical Journal, 2002, 565, 265-279.	1.6	107
30	Simulating Open Star Clusters. Astrophysics and Space Science Library, 2001, , 371-386.	1.0	2
31	How Many Young Star Clusters Exist in the Galactic Center?. Astrophysical Journal, 2001, 546, L101-L104.	1.6	53
32	Missing Link Found? The “Runaway” Path to Supermassive Black Holes. Astrophysical Journal, 2001, 562, L19-L22.	1.6	250
33	Stellar Dynamics of Dense Stellar Systems. Astrophysics and Space Science Library, 2001, , 29-38.	1.0	0
34	Gravitational thermodynamics. Complexity, 1997, 3, 38-45.	0.9	5
35	Dynamics and Binary (Trans)formation in Globular Clusters. Symposium - International Astronomical Union, 1996, 165, 377-388.	0.1	0
36	Dark Matter in Globular Clusters. Symposium - International Astronomical Union, 1996, 174, 303-312.	0.1	9

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37	The Role of Binaries in the Dynamical Evolution of the Core of a Globular Cluster. Symposium - International Astronomical Union, 1996, 174, 121-130.	0.1	19
38	Time-Symmetrized Kustaanheimo-Stiefel Regularization. Symposium - International Astronomical Union, 1996, 174, 367-368.	0.1	0
39	Time-Symmetrized Kustaanheimo-Stiefel Regularization. Astronomical Journal, 1996, 112, 1697.	1.9	35
40	Binary-Single-Star Scattering. VI. Automatic Determination of Interaction Cross Sections. Astrophysical Journal, 1996, 467, 348.	1.6	66
41	Dynamics and Binary (Trans)Formation in Globular Clusters. , 1996, , 377-388.		0
42	Building a better leapfrog. Astrophysical Journal, 1995, 443, L93.	1.6	166
43	Star cluster evolution with primordial binaries. 3: Effect of the Galactic tidal field. Astrophysical Journal, 1994, 427, 793.	1.6	32
44	Stellar black holes in globular clusters. Nature, 1993, 364, 421-423.	13.7	228
45	Binary-single-star scattering. III - Numerical experiments for equal-mass hard binaries. Astrophysical Journal, 1993, 403, 256.	1.6	56
46	Binary-single-star scattering. V - Steady state binary distribution in a homogeneous static background of single stars. Astrophysical Journal, 1993, 403, 271.	1.6	68
47	Binary-single-star scattering. IV - Analytic approximations and fitting formulae for cross sections and reaction rates. Astrophysical Journal, Supplement Series, 1993, 85, 347.	3.0	55
48	Binaries in globular clusters. Publications of the Astronomical Society of the Pacific, 1992, 104, 981.	1.0	348
49	Rates of collapse and evaporation of globular clusters. Nature, 1992, 359, 806-808.	13.7	18
50	New Directions in Globular Cluster Modeling. , 1992, , 317-348.		4
51	The evolution of a primordial binary population in a globular cluster. Astrophysical Journal, 1992, 389, 527.	1.6	68
52	A post-core-collapse model for the nucleus of M33. Nature, 1991, 354, 376-377.	13.7	9
53	Star cluster evolution with primordial binaries. II - Detailed analysis. Astrophysical Journal, 1991, 372, 111.	1.6	52
54	Star cluster evolution with primordial binaries. I - A comparative study. Astrophysical Journal, 1990, 362, 522.	1.6	69

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55	Bottlenecks in simulations of dense stellar systems. <i>Astrophysical Journal</i> , 1990, 365, 208.	1.6	14
56	Gravitational N-body algorithms: A comparison between supercomputers and a highly parallel computer. <i>Computer Physics Reports</i> , 1989, 9, 199-246.	2.3	18
57	Primordial binaries and globular cluster evolution. <i>Nature</i> , 1989, 339, 40-42.	13.7	60
58	Gravothermal oscillations after core collapse in globular cluster evolution. <i>Astrophysical Journal</i> , 1989, 342, 814.	1.6	37
59	Galaxies in the Connection Machine. , 1989, , 141-147.		0
60	Galaxies in the connection machine. <i>Celestial Mechanics</i> , 1988, 45, 141-147.	0.1	0
61	A laboratory for gravitational scattering experiments. <i>Celestial Mechanics</i> , 1988, 45, 213-218.	0.1	0
62	Modelling the evolution of globular star clusters. <i>Nature</i> , 1988, 336, 31-35.	13.7	16
63	On the evolution of globular cluster systems. I - Present characteristics and rate of destruction in our Galaxy. <i>Astrophysical Journal</i> , 1988, 335, 720.	1.6	123
64	Performance analysis of direct N-body calculations. <i>Astrophysical Journal, Supplement Series</i> , 1988, 68, 833.	3.0	46
65	Dynamical Evolution of Globular Clusters. <i>Annual Review of Astronomy and Astrophysics</i> , 1987, 25, 565-601.	8.1	77
66	The Globular Cluster Population of X-ray Binaries. Symposium - International Astronomical Union, 1987, 125, 187-197.	0.1	8
67	Comet showers as a cause of mass extinctions. <i>Nature</i> , 1987, 329, 118-126.	13.7	225
68	The Globular Cluster Population of X-Ray Binaries. , 1987, , 187-197.		104
69	A hierarchical $O(N \log N)$ force-calculation algorithm. <i>Nature</i> , 1986, 324, 446-449.	13.7	2,950
70	Terrestrial catastrophism: Nemesis or galaxy?. <i>Nature</i> , 1985, 313, 503-503.	13.7	5
71	Binary Formation and Interactions with Field Stars. Symposium - International Astronomical Union, 1985, 113, 231-249.	0.1	2
72	Binary Formation and Interactions with Field Stars. , 1985, , 231-249.		23

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73	Three Body Interactions and Cataclysmic Binaries in Globular Clusters. Astrophysics and Space Science Library, 1985, , 103-106.	1.0	0
74	Is it safe to disturb the vacuum?. Nuclear Physics A, 1984, 418, 301-311.	0.6	11
75	Extinction of species by periodic comet showers. Nature, 1984, 308, 715-717.	13.7	249
76	Can a neutrino-dominated Universe be rejected?. Nature, 1984, 310, 637-640.	13.7	47
77	How stable is an astronomical clock that can trigger mass extinctions on Earth?. Nature, 1984, 311, 638-641.	13.7	38
78	Cometary showers and unseen solar companions (reply). Nature, 1984, 312, 380-381.	13.7	5
79	The Three-Body Problem in Stellar Dynamics. , 1984, , 239-255.		1
80	White dwarfs and neutron stars in globular cluster X-ray sources. Nature, 1983, 301, 587-589.	13.7	52
81	How stable is our vacuum?. Nature, 1983, 302, 508-509.	13.7	35