Matthias Bartelmann

List of Publications by Year
in descending order

108	9,215	66234	38300
papers	citations	42 h-index	95 g-index

115	115	115	5397
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sloan Digital Sky Survey: Early Data Release. Astronomical Journal, 2002, 123, 485-548.	1.9	2,003
2	Weak gravitational lensing. Physics Reports, 2001, 340, 291-472.	10.3	1,711
3	THE CLUSTER LENSING AND SUPERNOVA SURVEY WITH HUBBLE: AN OVERVIEW. Astrophysical Journal, Supplement Series, 2012, 199, 25.	3.0	659
4	Gravitational lensing. Classical and Quantum Gravity, 2010, 27, 233001.	1.5	294
5	A magnified young galaxy from about 500 million years after the Big Bang. Nature, 2012, 489, 406-408.	13.7	273
6	EVIDENCE FOR UBIQUITOUS HIGH-EQUIVALENT-WIDTH NEBULAR EMISSION INzâ^¼ 7 GALAXIES: TOWARD A CLEAN MEASUREMENT OF THE SPECIFIC STAR-FORMATION RATE USING A SAMPLE OF BRIGHT, MAGNIFIED GALAXIES. Astrophysical Journal, 2014, 784, 58.	1.6	232
7	HUBBLE SPACE TELESCOPECOMBINED STRONG AND WEAK LENSING ANALYSIS OF THE CLASH SAMPLE: MASS AND MAGNIFICATION MODELS AND SYSTEMATIC UNCERTAINTIES. Astrophysical Journal, 2015, 801, 44.	1.6	207
8	Detection of Cosmic Magnification with the Sloan Digital Sky Survey. Astrophysical Journal, 2005, 633, 589-602.	1.6	204
9	CLASH: THE CONCENTRATION-MASS RELATION OF GALAXY CLUSTERS. Astrophysical Journal, 2015, 806, 4.	1.6	170
10	A CENSUS OF STAR-FORMING GALAXIES IN THEZâ^¼ 9-10 UNIVERSE BASED ONHST+SPITZEROBSERVATIONS OVER 19 CLASH CLUSTERS: THREE CANDIDATEZâ^¼ 9-10 GALAXIES AND IMPROVED CONSTRAINTS ON THE STAR FORMATION RATE DENSITY ATZâ^¼ 9.2. Astrophysical Journal, 2014, 795, 126.	1.6	159
11	Masses of Galaxy Clusters from Gravitational Lensing. Space Science Reviews, 2013, 177, 75-118.	3.7	127
12	THE MUSIC OF CLASH: PREDICTIONS ON THE CONCENTRATION-MASS RELATION. Astrophysical Journal, 2014, 797, 34.	1.6	115
13	CLASH: PRECISE NEW CONSTRAINTS ON THE MASS PROFILE OF THE GALAXY CLUSTER A2261. Astrophysical Journal, 2012, 757, 22.	1.6	112
14	CLASH-X: A COMPARISON OF LENSING AND X-RAY TECHNIQUES FOR MEASURING THE MASS PROFILES OF GALAXY CLUSTERS. Astrophysical Journal, 2014, 794, 136.	1.6	105
15	Cluster cross-sections for strong lensing: analytic and numerical lens models. Monthly Notices of the Royal Astronomical Society, 2003, 340, 105-114.	1.6	101
16	CLASH: MASS DISTRIBUTION IN AND AROUND MACS J1206.2-0847 FROM A FULL CLUSTER LENSING ANALYSIS. Astrophysical Journal, 2012, 755, 56.	1.6	101
17	CLASH: A CENSUS OF MAGNIFIED STAR-FORMING GALAXIES ATzâ^¼ 6-8. Astrophysical Journal, 2014, 792, 76.	1.6	98
18	Dark energy in the swampland. Physical Review D, 2018, 98, .	1.6	98

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19	The dark Universe. Reviews of Modern Physics, 2010, 82, 331-382.	16.4	95
20	The impact of cluster mergers on arc statistics. Monthly Notices of the Royal Astronomical Society, 2004, 349, 476-490.	1.6	91
21	The Three-Dimensional Shapes of Galaxy Clusters. Space Science Reviews, 2013, 177, 155-194.	3.7	85
22	Giant cluster arcs as a constraint on the scattering cross-section of dark matter. Monthly Notices of the Royal Astronomical Society, 2001, 325, 435-442.	1.6	82
23	Maximum Likelihood Cluster Reconstruction. Astrophysical Journal, 1996, 464, L115-L118.	1.6	81
24	CLASH: COMPLETE LENSING ANALYSIS OF THE LARGEST COSMIC LENS MACS J0717.5+3745 AND SURROUNDING STRUCTURES. Astrophysical Journal, 2013, 777, 43.	1.6	79
25	Effects of cluster galaxies on arc statistics. Monthly Notices of the Royal Astronomical Society, 2000, 314, 338-347.	1.6	75
26	A Catalog of Compact Groups of Galaxies in the SDSS Commissioning Data. Astronomical Journal, 2004, 127, 1811-1859.	1.9	75
27	cD galaxy contribution to the strong lensing cross-sections of galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2003, 346, 67-77.	1.6	71
28	THE CLUSTER LENSING AND SUPERNOVA SURVEY WITHHUBBLE(CLASH): STRONG-LENSING ANALYSIS OF A383 FROM 16-BANDHST/WFC3/ACS IMAGING. Astrophysical Journal, 2011, 742, 117.	1.6	63
29	CLASH: NEW MULTIPLE IMAGES CONSTRAINING THE INNER MASS PROFILE OF MACS J1206.2â€“0847. Astrophysical Journal, 2012, 749, 97.	1.6	58
30	Halo model description of the non-linear dark matter power spectrum at kâ‰« 1â€ƒMpcâ^'1. Monthly Notices of the Royal Astronomical Society, 0, 408, 300-313.	1.6	56
31	The Core Structure of Galaxy Clusters from Gravitational Lensing. Astrophysical Journal, 1999, 527, 535-544.	1.6	56
32	Is the Number of Giant Arcs in ÎCDM Consistent with Observations?. Astrophysical Journal, 2005, 635, 795-805.	1.6	55
33	Miscentring in galaxy clusters: dark matter to brightest cluster galaxy offsets in 10â€‰000 Sloan Digital Sky Survey clusters. Monthly Notices of the Royal Astronomical Society, 2012, 426, 2944-2956.	1.6	54
34	A comparison of structure formation in minimally and non-minimally coupled quintessence models. Monthly Notices of the Royal Astronomical Society, 2014, 437, 547-561.	1.6	54
35	Mass Distributions ofHubble Space TelescopeGalaxy Clusters from Gravitational Arcs. Astrophysical Journal, 2006, 642, 39-47.	1.6	52
36	Arc Statistics. Space Science Reviews, 2013, 177, 31-74.	3.7	52

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37	Gravitational lensing of type Ia supernovae by galaxy clusters. Monthly Notices of the Royal Astronomical Society, 1998, 296, 763-772.	1.6	50
38	The Lensed Arc Production Efficiency of Galaxy Clusters: A Comparison of Matched Observed and Simulated Samples. Astrophysical Journal, 2005, 633, 768-780.	1.6	49
39	moka: a new tool for strong lensing studies. Monthly Notices of the Royal Astronomical Society, 2012, 421, 3343-3355.	1.6	49
40	CLASH: z â‹¼ 6 young galaxy candidate quintuply lensed by the frontier field cluster RXC J2248.7â‹'4431. Monthly Notices of the Royal Astronomical Society, 2014, 438, 1417-1434.	1.6	49
41	Evolution of dark-matter haloes in a variety of dark-energy cosmologies. New Astronomy Reviews, 2005, 49, 199-203.	5.2	47
42	Early structure formation in quintessence models and its implications for cosmic reionization from first stars. Monthly Notices of the Royal Astronomical Society, 2006, 373, 869-878.	1.6	45
43	THREE GRAVITATIONALLY LENSED SUPERNOVAE BEHIND CLASH GALAXY CLUSTERS. Astrophysical Journal, 2014, 786, 9.	1.6	45
44	Full-sky maps for gravitational lensing of the cosmic microwave background. Monthly Notices of the Royal Astronomical Society, 2008, 388, 1618-1626.	1.6	41
45	The universal Einstein radius distribution from 10â€ƒ000 SDSS clusters. Monthly Notices of the Royal Astronomical Society, 2012, 423, 2308-2324.	1.6	39
46	CLASH: accurate photometric redshifts with 14 HST bands in massive galaxy cluster cores. Monthly Notices of the Royal Astronomical Society, 2017, 470, 95-113.	1.6	39
47	The effects of ellipticity and substructure on estimates of cluster density profiles based on lensing and kinematics. Monthly Notices of the Royal Astronomical Society, 2007, 381, 171-186.	1.6	38
48	THE CONTRIBUTION OF HALOS WITH DIFFERENT MASS RATIOS TO THE OVERALL GROWTH OF CLUSTER-SIZED HALOS. Astrophysical Journal, 2013, 776, 91.	1.6	33
49	A microscopic, non-equilibrium, statistical field theory for cosmic structure formation. New Journal of Physics, 2016, 18, 043020.	1.2	32
50	The Lens Parallax Method: Determining Redshifts of Faint Blue Galaxies through Gravitational Lensing. Astrophysical Journal, 1995, 451, 60.	1.6	30
51	Gravitational Lensing of Quasi-stellar Objects by Their Damped LY alpha Absorbers. Astrophysical Journal, 1996, 457, 529.	1.6	29
52	Lensed CMB temperature and polarization maps from the Millennium Simulation. Monthly Notices of the Royal Astronomical Society, 2009, 396, 668-679.	1.6	26
53	Probing Intracluster Magnetic Fields with Cosmic Microwave Background Polarization. Astrophysical Journal, 2003, 584, 599-607.	1.6	24
54	Constraints on dark energy models from galaxy clusters with multiple arcs. Monthly Notices of the Royal Astronomical Society, 2005, 362, 1301-1310.	1.6	24

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55	GALAXY HALO TRUNCATION AND GIANT ARC SURFACE BRIGHTNESS RECONSTRUCTION IN THE CLUSTER MACSJ1206.2-0847. Astrophysical Journal, 2013, 774, 124.	1.6	24
56	On the implementation of the spherical collapse model for dark energy models. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 040-040.	1.9	24
57	Lensed arc statistics: comparison of Millennium simulation galaxy clusters to Hubble Space Telescope observations of an X-ray selected sample. Monthly Notices of the Royal Astronomical Society, 2011, 418, 54-63.	1.6	23
58	Relativistic virialization in the spherical collapse model for Einstein-de Sitter and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î›</mml:mi><mml:mi>CDM</mml:mi></mml:math>cosmologies. Physical Review D, 2012, 86, .	1.6	23
59	CLASH-VLT: CONSTRAINTS ON THE DARK MATTER EQUATION OF STATE FROM ACCURATE MEASUREMENTS OF GALAXY CLUSTER MASS PROFILES. Astrophysical Journal Letters, 2014, 783, L11.	3.0	23
60	Effects of Disks on Gravitational Lensing by Spiral Galaxies. Astrophysical Journal, 1998, 503, 48-60.	1.6	22
61	Cosmic Structure Formation with Kinetic Field Theory. Annalen Der Physik, 2019, 531, 1800446.	0.9	21
62	Probing ionizing radiation of L â‰² 0.1 Lâœ» star-forming galaxies at z â‰² 3 with strong lensing. Monthly Notices of the Royal Astronomical Society: Letters, 2012, 424, L54-L58.	1.2	20
63	Trajectories of point particles in cosmology and the Zelâ€™dovich approximation. Physical Review D, 2015, 91, .	1.6	19
64	Kinetic field theory: effects of momentum correlations on the cosmic density-fluctuation power spectrum. New Journal of Physics, 2017, 19, 083001.	1.2	19
65	Dark energy in the Swampland II. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	2.0	17
66	Horndeski gravity in the swampland. Physical Review D, 2019, 99, .	1.6	16
67	Effects of Dust on Gravitational Lensing by Spiral Galaxies. Astrophysical Journal, 1997, 488, 550-556.	1.6	16
68	Comparisons between Isothermal and NFW Mass Profiles for Strongâ€Lensing Galaxy Clusters. Astrophysical Journal, 2008, 685, 70-82.	1.6	15
69	Redshifts of Faint Blue Galaxies From Gravitational Lensing. Symposium - International Astronomical Union, 1996, 173, 143-148.	0.1	13
70	Internal Cluster Structure. Space Science Reviews, 2013, 177, 3-29.	3.7	13
71	CLASH: EXTENDING GALAXY STRONG LENSING TO SMALL PHYSICAL SCALES WITH DISTANT SOURCES HIGHLY MAGNIFIED BY GALAXY CLUSTER MEMBERS. Astrophysical Journal, 2014, 786, 11.	1.6	13
72	Long range effects in gravity theories with Vainshtein screening. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 009-009.	1.9	13

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73	Strong lensing by cluster-sized halos in dark energy cosmologies. New Astronomy Reviews, 2005, 49, 111-114.	5.2	12
74	The lensing efficiencies of MACS X-ray-selected versus RCS optically selected galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2010, , no-no.	1.6	11
75	Constraints on Î©_mand Ïƒ₈from the potential-based cluster temperature function. Monthly Notices of the Royal Astronomical Society, 2015, 454, 1687-1696.	1.6	11
76	Kinetic field theory: exact free evolution of Gaussian phase-space correlations. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 043214.	0.9	11
77	Resummed Kinetic Field Theory: general formalism and linear structure growth from Newtonian particle dynamics. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 001-001.	1.9	11
78	Nonequilibrium statistical field theory for classical particles: Basic kinetic theory. Physical Review E, 2015, 91, 062120.	0.8	10
79	CLASH: EXTREME EMISSION-LINE GALAXIES AND THEIR IMPLICATION ON SELECTION OF HIGH-REDSHIFT GALAXIES. Astrophysical Journal, 2015, 801, 12.	1.6	10
80	The projected gravitational potential of the galaxy cluster MACS J1206 derived from galaxy kinematics. Astronomy and Astrophysics, 2015, 584, A63.	2.1	9
81	Statistical distribution of gravitational-lensing excursion angles: winding ways to us from the deep Universe. Monthly Notices of the Royal Astronomical Society, 2005, 356, 829-838.	1.6	8
82	Reconstructing the projected gravitational potential of galaxy clusters from galaxy kinematics. Astronomy and Astrophysics, 2014, 570, A9.	2.1	8
83	Reconstructing the projected gravitational potential of Abell 1689 from X-ray measurements. Astronomy and Astrophysics, 2015, 574, A122.	2.1	8
84	Resummed Kinetic Field Theory: using Mesoscopic Particle Hydrodynamics to describe baryonic matter in a cosmological framework. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 017-017.	1.9	7
85	Kinetic field theory: Non-linear cosmic power spectra in the mean-field approximation. SciPost Physics, 2021, 10, .	1.5	7
86	Evolution of linear perturbations in LemaÃ‡tre-Tolman-Bondi void models. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 053-053.	1.9	5
87	Kinetic field theory: cosmic structure formation and fluctuation-dissipation relations. Journal of Physics Communications, 2018, 2, 025020.	0.5	5
88	Model independent analysis of supernova data, dark energy, trans-Planckian censorship and the swampland. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 812, 135990.	1.5	5
89	ARC STATISTICS WITH NUMERICAL CLUSTER MODELS IN DARK ENERGY COSMOLOGIES. Modern Physics Letters A, 2004, 19, 1083-1087.	0.5	4
90	Cosmic reionization in dynamic quintessence cosmology. Monthly Notices of the Royal Astronomical Society, 2008, 385, 728-736.	1.6	4

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91	A study of relative velocity statistics in Lagrangian perturbation theory with PINOCCHIO. Monthly Notices of the Royal Astronomical Society, 2011, 416, 3057-3066.	1.6	4
92	Estimation of halo ellipticity using spin-3 flexion. Monthly Notices of the Royal Astronomical Society, 2013, 428, 103-108.	1.6	4
93	Kinetic field theory applied to vector-tensor gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 796, 59-64.	1.5	4
94	A first comparison of Kinetic Field Theory with Eulerian Standard Perturbation Theory. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 035.	1.9	4
95	PROPERTIES OF GALAXY CLUSTERS IN COSMOLOGIES WITH DARK ENERGY. Modern Physics Letters A, 2004, 19, 1079-1082.	0.5	3
96	Die dunkle Seite des Kosmos. Dunkle Materie. Physik in Unserer Zeit, 2009, 40, 74-81.	0.0	3
97	Joint cluster reconstructions. Astronomy and Astrophysics, 2019, 627, A143.	2.1	3
98	Fundamental Cosmological Observations and Data Interpretation. , 2009, , 7-201.		3
99	Lensing by Lymanâ€Limit Systems: Determining the Massâ€toâ€Gas Ratio. Astrophysical Journal, 2002, 569, 72-82.	1.6	3
100	Linear perturbations in spherically symmetric dust cosmologies including a cosmological constant. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 025-025.	1.9	2
101	Resummed kinetic field theory: a model of coupled baryonic and dark matter. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 046-046.	1.9	2
102	Editorial: Special Issue: Dark Matter. Annalen Der Physik, 2012, 524, A133-A134.	0.9	1
103	Perturbation theory trispectrum in the time renormalization approach. Monthly Notices of the Royal Astronomical Society, 2013, 428, 3173-3182.	1.6	1
104	Gravitationslinsen erhellen das Dunkel. Physik in Unserer Zeit, 2014, 45, 220-227.	0.0	1
105	Buchbesprechung: Physik, Bachelorâ€Edition. Von D. Halliday, R. Resnick, J. Walker. Physik in Unserer Zeit, 2007, 38, 255-255.	0.0	0
106	Das beschleunigte Universum. Physik in Unserer Zeit, 2011, 42, 274-275.	0.0	0
107	Light propagation in linearly perturbed ÎLTB models. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 037-037.	1.9	0
108	Gravitational lensing by large-scale structures. , 1991, , 345-349.		0