

Takahiro Nishimichi

List of Publications by Year in descending order

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101
papers

4,240
citations

136950

32
h-index

114465

63
g-index

101
all docs

101
docs citations

101
times ranked

2356
citing authors

#	ARTICLE	IF	CITATIONS
1	REVISING THE HALOFIT MODEL FOR THE NONLINEAR MATTER POWER SPECTRUM. <i>Astrophysical Journal</i> , 2012, 761, 152.	4.5	842
2	Baryon acoustic oscillations in 2D: Modeling redshift-space power spectrum from perturbation theory. <i>Physical Review D</i> , 2010, 82, .	4.7	312
3	The Subaru FMOS galaxy redshift survey (FastSound). IV. New constraint on gravity theory from redshift space distortions at $z \sim 1.4$. <i>Publication of the Astronomical Society of Japan</i> , 2016, 68, .	2.5	171
4	Direct and fast calculation of regularized cosmological power spectrum at two-loop order. <i>Physical Review D</i> , 2012, 86, .	4.7	147
5	Simultaneous constraints on the growth of structure and cosmic expansion from the multipole power spectra of the SDSS DR7 LRG sample. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 439, 2515-2530.	4.4	146
6	Dark Quest. I. Fast and Accurate Emulation of Halo Clustering Statistics and Its Application to Galaxy Clustering. <i>Astrophysical Journal</i> , 2019, 884, 29.	4.5	126
7	Modeling Nonlinear Evolution of Baryon Acoustic Oscillations: Convergence Regime of N -body Simulations and Analytic Models. <i>Publication of the Astronomical Society of Japan</i> , 2009, 61, 321-332.	2.5	117
8	Nonlinear evolution of baryon acoustic oscillations from improved perturbation theory in real and redshift spaces. <i>Physical Review D</i> , 2009, 80, .	4.7	116
9	Full-sky Gravitational Lensing Simulation for Large-area Galaxy Surveys and Cosmic Microwave Background Experiments. <i>Astrophysical Journal</i> , 2017, 850, 24.	4.5	114
10	SIMULATIONS OF BARYON ACOUSTIC OSCILLATIONS. II. COVARIANCE MATRIX OF THE MATTER POWER SPECTRUM. <i>Astrophysical Journal</i> , 2009, 700, 479-490.	4.5	113
11	Blinded challenge for precision cosmology with large-scale structure: Results from effective field theory for the redshift-space galaxy power spectrum. <i>Physical Review D</i> , 2020, 102, .	4.7	86
12	Bispectrum and Nonlinear Biasing of Galaxies: Perturbation Analysis, Numerical Simulation, and SDSS Galaxy Clustering. <i>Publication of the Astronomical Society of Japan</i> , 2007, 59, 93-106.	2.5	80
13	Weak-lensing Mass Calibration of ACTPol Sunyaev-Zel'dovich Clusters with the Hyper Suprime-Cam Survey. <i>Astrophysical Journal</i> , 2019, 875, 63.	4.5	72
14	Constraints on the Mass-Richness Relation from the Abundance and Weak Lensing of SDSS Clusters. <i>Astrophysical Journal</i> , 2018, 854, 120.	4.5	68
15	Testing Gravity with the Stacked Phase Space around Galaxy Clusters. <i>Physical Review Letters</i> , 2012, 109, 051301.	7.8	62
16	Precision modeling of redshift-space distortions from a multipoint propagator expansion. <i>Physical Review D</i> , 2013, 87, .	4.7	55
17	Baryon acoustic oscillations in 2D. II. Redshift-space halo clustering in N -body simulations. <i>Physical Review D</i> , 2011, 84, .	4.7	54
18	The mass-richness relation of optically selected clusters from weak gravitational lensing and abundance with Subaru HSC first-year data. <i>Publication of the Astronomical Society of Japan</i> , 2019, 71, .	2.5	54

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19	Full-shape cosmology analysis of the SDSS-III BOSS galaxy power spectrum using an emulator-based halo model: A 5% determination of σ_8 . Physical Review D, 2022, 105, .	4.7	50
20	Forecasting the cosmological constraints with anisotropic baryon acoustic oscillations from multipole expansion. Physical Review D, 2011, 83, .	4.7	46
21	NON-GAUSSIAN ERROR CONTRIBUTION TO LIKELIHOOD ANALYSIS OF THE MATTER POWER SPECTRUM. Astrophysical Journal, 2011, 726, 7.	4.5	43
22	Impact of the non-Gaussian covariance of the weak lensing power spectrum and bispectrum on cosmological parameter estimation. Physical Review D, 2013, 87, .	4.7	42
23	The multidimensional dependence of halo bias in the eye of a machine: a tale of halo structure, assembly, and environment. Monthly Notices of the Royal Astronomical Society, 2019, 482, 1900-1919.	4.4	42
24	Scale dependence of halo bispectrum from non-Gaussian initial conditions in cosmological N-body simulations. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 002-002.	5.4	38
25	Robust covariance estimation of galaxy-galaxy weak lensing: validation and limitation of jackknife covariance. Monthly Notices of the Royal Astronomical Society, 2017, 470, 3476-3496.	4.4	38
26	Regularized cosmological power spectrum and correlation function in modified gravity models. Physical Review D, 2014, 90, .	4.7	37
27	Matter power spectrum from a Lagrangian-space regularization of perturbation theory. Physical Review D, 2013, 87, .	4.7	36
28	Consistent modified gravity analysis of anisotropic galaxy clustering using BOSS DR11. Physical Review D, 2015, 92, .	4.7	36
29	Precision analysis of the redshift-space galaxy bispectrum. Physical Review D, 2022, 105, .	4.7	35
30	Response function of the large-scale structure of the universe to the small scale inhomogeneities. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 762, 247-252.	4.1	34
31	Simulations of baryon acoustic oscillations - I. Growth of large-scale density fluctuations. Monthly Notices of the Royal Astronomical Society, 2008, 389, 1675-1682.	4.4	33
32	Accurate emulator for the redshift-space power spectrum of dark matter halos and its application to galaxy power spectrum. Physical Review D, 2020, 102, .	4.7	33
33	Fitting the Nonlinear Matter Bispectrum by the Halofit Approach. Astrophysical Journal, 2020, 895, 113.	4.5	33
34	The splashback radius of optically selected clusters with Subaru HSC Second Public Data Release. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	32
35	Cosmic propagators at two-loop order. Physical Review D, 2014, 89, .	4.7	31
36	Grid-based calculation for perturbation theory of large-scale structure. Physical Review D, 2018, 98, .	4.7	31

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37	Primordial non-Gaussianity without tails – how to measure f_{NL} with the bulk of the density PDF. Monthly Notices of the Royal Astronomical Society, 2020, 498, 464-483.	4.4	31
38	The impact of projection effects on cluster observables: stacked lensing and projected clustering. Monthly Notices of the Royal Astronomical Society, 2020, 496, 4468-4487.	4.4	31
39	Strong orientation dependence of surface mass density profiles of dark haloes at large scales. Monthly Notices of the Royal Astronomical Society, 2018, 477, 2141-2153.	4.4	30
40	Moving around the cosmological parameter space: A nonlinear power spectrum reconstruction based on high-resolution cosmic responses. Physical Review D, 2017, 96, .	4.7	25
41	Modeling the phase-space distribution around massive halos. Physical Review D, 2013, 88, .	4.7	24
42	The imprint of $f(R)$ gravity on weak gravitational lensing – II. Information content in cosmic shear statistics. Monthly Notices of the Royal Astronomical Society, 2017, 466, 2402-2417.	4.4	24
43	Shapes and alignments of dark matter haloes and their brightest cluster galaxies in 39 strong lensing clusters. Monthly Notices of the Royal Astronomical Society, 2020, 496, 2591-2604.	4.4	24
44	Cosmic shear full nulling: sorting out dynamics, geometry and systematics. Monthly Notices of the Royal Astronomical Society, 2014, 445, 1526-1537.	4.4	23
45	Evolution and statistics of non-sphericity of dark matter halos from cosmological N -body simulation. Publication of the Astronomical Society of Japan, 2016, 68, .	2.5	23
46	Projected axis ratios of galaxy clusters in the Horizon-AGN simulation: Impact of baryon physics and comparison with observations. Publication of the Astronomical Society of Japan, 2017, 69, .	2.5	23
47	First results on the cluster galaxy population from the Subaru Hyper Suprime-Cam survey. II. Faint end color–magnitude diagrams and radial profiles of red and blue galaxies at $0.1 < z < 1.1$. Publication of the Astronomical Society of Japan, 2018, 70, .	2.5	23
48	Perturbation theory challenge for cosmological parameters estimation: Matter power spectrum in real space. Physical Review D, 2019, 99, .	4.7	22
49	Power spectrum of halo intrinsic alignments in simulations. Monthly Notices of the Royal Astronomical Society, 2020, 501, 833-852.	4.4	22
50	Validating a minimal galaxy bias method for cosmological parameter inference using HSC-SDSS mock catalogs. Physical Review D, 2020, 102, .	4.7	21
51	Intrinsic alignment statistics of density and velocity fields at large scales: Formulation, modeling, and baryon acoustic oscillation features. Physical Review D, 2019, 100, .	4.7	20
52	Cross-correlation between UHECR arrival distribution and large-scale structure. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 031-031.	5.4	19
53	Cosmological information content in redshift-space power spectrum of SDSS-like galaxies in the quasilinear regime up to $k < 0.3 \text{ h}^{-1} \text{ Mpc}^{-1}$. Physical Review D, 2020, 101, .	4.7	19
54	On the systematic errors of cosmological-scale gravity tests using redshift-space distortion: non-linear effects and the halo bias. Monthly Notices of the Royal Astronomical Society, 2014, 443, 3359-3367.	4.4	18

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55	Anisotropic separate universe simulations. Monthly Notices of the Royal Astronomical Society, 2020, 496, 483-496.	4.4	18
56	Black hole formation and growth with non-Gaussian primordial density perturbations. Monthly Notices of the Royal Astronomical Society, 2016, 456, 1901-1912.	4.4	17
57	Splashback radius of nonspherical dark matter halos from cosmic density and velocity fields. Physical Review D, 2018, 98, .	4.7	17
58	Testing the equal-time angular-averaged consistency relation of the gravitational dynamics in N -body simulations. Physical Review D, 2014, 90, .	4.7	16
59	Covariances for cosmic shear and galaxy-galaxy lensing in the response approach. Monthly Notices of the Royal Astronomical Society, 2019, 482, 4253-4277.	4.4	16
60	Towards a non-Gaussian model of redshift space distortions. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1175-1193.	4.4	16
61	Perturbation theory for the non-linear halo power spectrum: the renormalized bias and halo bias. Monthly Notices of the Royal Astronomical Society, 2013, 433, 209-220.	4.4	15
62	Projected alignment of non-sphericities of stellar, gas, and dark matter distributions in galaxy clusters: analysis of the Horizon-AGN simulation. Monthly Notices of the Royal Astronomical Society, 2018, 478, 1141-1160.	4.4	15
63	Phase-space structure of cold dark matter haloes inside splashback: multistream flows and self-similar solution. Monthly Notices of the Royal Astronomical Society, 2020, 493, 2765-2781.	4.4	15
64	Power spectrum of intrinsic alignments of galaxies in IllustrisTNG. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 030.	5.4	15
65	Noise reduction for weak lensing mass mapping: an application of generative adversarial networks to Subaru Hyper Suprime-Cam first-year data. Monthly Notices of the Royal Astronomical Society, 2021, 504, 1825-1839.	4.4	15
66	Testing tidal alignment models for anisotropic correlations of halo ellipticities with N -body simulations. Monthly Notices of the Royal Astronomical Society, 2020, 494, 694-702.	4.4	14
67	HSC Year 1 cosmology results with the minimal bias method: N -body galaxy-galaxy weak lensing and BOSS galaxy clustering. Physical Review D, 2022, 105, .	4.7	14
68	PROBING PRIMORDIAL NON-GAUSSIANITY WITH WEAK-LENSING MINKOWSKI FUNCTIONALS. Astrophysical Journal, 2012, 760, 45.	4.5	13
69	Simulating the anisotropic clustering of luminous red galaxies with subhaloes: a direct confrontation with observation and cosmological implications. Monthly Notices of the Royal Astronomical Society, 2014, 444, 1400-1418.	4.4	11
70	Imprint of anisotropic primordial non-Gaussianity on halo intrinsic alignments in simulations. Physical Review D, 2021, 103, .	4.7	11
71	Covariance of the matter power spectrum including the survey window function effect: N -body simulations versus fifth-order perturbation theory on grids. Physical Review D, 2021, 103, .	4.7	11
72	Effect of primordial non-Gaussianities on the far-UV luminosity function of high-redshift galaxies: implications for cosmic reionization. Monthly Notices of the Royal Astronomical Society, 2015, 446, 3235-3252.	4.4	10

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73	Bispectrum as baryon acoustic oscillation interferometer. <i>Physical Review D</i> , 2018, 98, .	4.7	10
74	Semi-analytic modelling of AGNs: autocorrelation function and halo occupation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 1-18.	4.4	10
75	Constraining cluster masses from the stacked phase space distribution at large radii. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 489, 1344-1356.	4.4	9
76	Damping of the baryon acoustic oscillations in the matter power spectrum as a probe of the growth factor. <i>Journal of Cosmology and Astroparticle Physics</i> , 2008, 2008, 031.	5.4	8
77	SUZAKU OBSERVATION OF A NEW MERGING GROUP OF GALAXIES AT A FILAMENTARY JUNCTION. <i>Astrophysical Journal Letters</i> , 2011, 727, L38.	8.3	8
78	The pairwise velocity probability density function in models with local primordial non-Gaussianity. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 414, 289-303.	4.4	8
79	Scale dependence of the halo bias in general local-type non-Gaussian models I: analytical predictions and consistency relations. <i>Journal of Cosmology and Astroparticle Physics</i> , 2012, 2012, 037-037.	5.4	8
80	Consistency relations for large-scale structures with primordial non-Gaussianities. <i>Physical Review D</i> , 2017, 95, .	4.7	8
81	Measuring bias via the consistency relations of the large scale structure. <i>Physical Review D</i> , 2019, 100, .	4.7	7
82	Testing primordial non-Gaussianities on galactic scales at high redshift. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2014, 445, L129-L133.	3.3	6
83	New constraints on red-spiral galaxies from their kinematics in clusters of galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 488, 4117-4125.	4.4	6
84	Cosmological evolution of orientations of cluster-sized dark matter haloes and their central galaxies in the Horizon-AGN simulation. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	6
85	Mitigating the impact of fiber assignment on clustering measurements from deep galaxy redshift surveys. <i>Journal of Cosmology and Astroparticle Physics</i> , 2020, 2020, 057-057.	5.4	6
86	Model independent measurement of the growth rate from the consistency relations of the LSS. <i>Journal of Cosmology and Astroparticle Physics</i> , 2020, 2020, 054-054.	5.4	6
87	Grid-based calculations of redshift-space matter fluctuations from perturbation theory: UV sensitivity and convergence at the field level. <i>Physical Review D</i> , 2022, 105, .	4.7	6
88	Redshift-space equal-time angular-averaged consistency relations of the gravitational dynamics. <i>Physical Review D</i> , 2015, 92, .	4.7	5
89	BAO extractor: bias and redshift space effects. <i>Journal of Cosmology and Astroparticle Physics</i> , 2018, 2018, 035-035.	5.4	5
90	Implementing spectra response function approaches for fast calculation of power spectra and bispectra. <i>Physical Review D</i> , 2021, 104, .	4.7	5

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91	The Subaru HSC weak lensing mass-observable scaling relations of spectroscopic galaxy groups from the GAMA survey. Monthly Notices of the Royal Astronomical Society, 2022, 510, 5408-5425.	4.4	5
92	Confronting the damping of the baryon acoustic oscillations with observation. Physical Review D, 2009, 79, .	4.7	4
93	Systematic Survey of the Correlation between Northern HECR Events and SDSS Galaxies. Progress of Theoretical Physics, 2011, 126, 1123-1144.	2.0	4
94	Chasing unbiased spectra of the Universe. Physical Review D, 2013, 87, .	4.7	4
95	Power spectrum response of large-scale structure in 1D and in 3D: tests of prescriptions for post-collapse dynamics. Monthly Notices of the Royal Astronomical Society, 2020, 499, 1769-1787.	4.4	4
96	MODELING THE ANOMALY OF SURFACE NUMBER DENSITIES OF GALAXIES ON THE GALACTIC EXTINCTION MAP DUE TO THEIR FIR EMISSION CONTAMINATION. Astrophysical Journal, 2015, 799, 132.	4.5	3
97	Impacts of pre-initial conditions on anisotropic separate universe simulations: a boosted tidal response in the epoch of reionization. Monthly Notices of the Royal Astronomical Society, 2020, 500, 1018-1028.	4.4	2
98	Mock catalogues of emission-line galaxies based on the local mass density in dark-matter only simulations. Monthly Notices of the Royal Astronomical Society, 2022, 511, 1131-1140.	4.4	1
99	Three-dimensional spatial join count exploiting CPU optimized STR R-tree. , 2016, , .		0
100	Lagrangian-space Gaussian ansatz for the matter redshift-space power spectrum and correlation function. Physical Review D, 2020, 102, .	4.7	0
101	Anisotropic Clustering of the SDSS LRG as a Dual Probe of Growth of Structure and Cosmic Expansion. , 2014, , .		0