Takahiro Nishimichi

List of Publications by Year
in descending order

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	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
2	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
3	Precision analysis of the redshift-space galaxy bispectrum. Physical Review D, 2022, 105, .	4.7	35
4	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
5	Grid-based calculations of redshift-space matter fluctuations from perturbation theory: UV sensitivity and convergence at the field level. Physical Review D, 2022, 105, .	4.7	6
6	HSC Year 1 cosmology results with the minimal bias method: $HSC \times BOSS$ galaxy-galaxy weak lensing and BOSS galaxy clustering. Physical Review D, 2022, 105, .	4.7	14
7	Power spectrum of intrinsic alignments of galaxies in IllustrisTNG. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 030.	5.4	15
8	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
9	Imprint of anisotropic primordial non-Gaussianity on halo intrinsic alignments in simulations. Physical Review D, 2021, 103, .	4.7	11
10	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
11	Implementing spectra response function approaches for fast calculation of power spectra and bispectra. Physical Review D, 2021, 104, .	4.7	5
12	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
13	Validating a minimal galaxy bias method for cosmological parameter inference using HSC-SDSS mock catalogs. Physical Review D, 2020, 102, .	4.7	21
14	Cosmological information content in redshift-space power spectrum of SDSS-like galaxies in the quasinonlinear regime up to $k = 0.3$. Physical Review D, 2020, 101, .	4.7	19
15	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
16	Semi-analytic modelling of AGNs: autocorrelation function and halo occupation. Monthly Notices of the Royal Astronomical Society, 2020, 497, 1-18.	4.4	10
17	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
18	Towards a non-Gaussian model of redshift space distortions. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1175-1193.	4.4	16

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19	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
20	Lagrangian-space Gaussian ansatz for the matter redshift-space power spectrum and correlation function. Physical Review D, 2020, 102, .	4.7	0
21	Primordial non-Gaussianity without tails â€" how to measure fNL with the bulk of the density PDF. Monthly Notices of the Royal Astronomical Society, 2020, 498, 464-483.	4.4	31
22	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
23	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
24	Anisotropic separate universe simulations. Monthly Notices of the Royal Astronomical Society, 2020, 496, 483-496.	4.4	18
25	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
26	Mitigating the impact of fiber assignment on clustering measurements from deep galaxy redshift surveys. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 057-057.	5.4	6
27	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
28	Power spectrum of halo intrinsic alignments in simulations. Monthly Notices of the Royal Astronomical Society, 2020, 501, 833-852.	4.4	22
29	Blinded challenge for precision cosmology with large-scale structure: Results from effective field theory for the redshift-space galaxy power spectrum. Physical Review D, 2020, 102, .	4.7	86
30	Fitting the Nonlinear Matter Bispectrum by the Halofit Approach. Astrophysical Journal, 2020, 895, 113.	4.5	33
31	Model independent measurement of the growth rate from the consistency relations of the LSS. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 054-054.	5.4	6
32	Constraining cluster masses from the stacked phase space distribution at large radii. Monthly Notices of the Royal Astronomical Society, 2019, 489, 1344-1356.	4.4	9
33	The massâ€"richness relation of optically selected clusters from weak gravitational lensing and abundance with Subaru HSC first-year data. Publication of the Astronomical Society of Japan, 2019, 71, .	2.5	54
34	New constraints on red-spiral galaxies from their kinematics in clusters of galaxies. Monthly Notices of the Royal Astronomical Society, 2019, 488, 4117-4125.	4.4	6
35	Weak-lensing Mass Calibration of ACTPol Sunyaevâ€"Zelâ€™dovich Clusters with the Hyper Suprime-Cam Survey. Astrophysical Journal, 2019, 875, 63.	4.5	72
36	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

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37	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
38	Perturbation theory challenge for cosmological parameters estimation: Matter power spectrum in real space. Physical Review D, 2019, 99, .	4.7	22
39	Dark Quest. I. Fast and Accurate Emulation of Halo Clustering Statistics and Its Application to Galaxy Clustering. Astrophysical Journal, 2019, 884, 29.	4.5	126
40	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
41	Measuring bias via the consistency relations of the large scale structure. Physical Review D, 2019, 100, .	4.7	7
42	BAO extractor: bias and redshift space effects. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 035-035.	5.4	5
43	Constraints on the Mass–Richness Relation from the Abundance and Weak Lensing of SDSS Clusters. Astrophysical Journal, 2018, 854, 120.	4.5	68
44	Bispectrum as baryon acoustic oscillation interferometer. Physical Review D, 2018, 98, .	4.7	10
45	Grid-based calculation for perturbation theory of large-scale structure. Physical Review D, 2018, 98, .	4.7	31
46	Splashback radius of nonspherical dark matter halos from cosmic density and velocity fields. Physical Review D, 2018, 98, .	4.7	17
47	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
48	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
49	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
50	Consistency relations for large-scale structures with primordial non-Gaussianities. Physical Review D, 2017, 95, .	4.7	8
51	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
52	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
53	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
54	Full-sky Gravitational Lensing Simulation for Large-area Galaxy Surveys and Cosmic Microwave Background Experiments. Astrophysical Journal, 2017, 850, 24.	4.5	114

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55	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
56	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
57	Three-dimensional spatial join count exploiting CPU optimized STR R-tree. , 2016, , .		0
58	The Subaru FMOS galaxy redshift survey (FastSound). IV. New constraint on gravity theory from redshift space distortions at z â¼ 1.4. Publication of the Astronomical Society of Japan, 2016, 68, .	2.5	171
59	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
60	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
61	Consistent modified gravity analysis of anisotropic galaxy clustering using BOSS DR11. Physical Review D, 2015, 92, .	4.7	36
62	Redshift-space equal-time angular-averaged consistency relations of the gravitational dynamics. Physical Review D, 2015, 92, .	4.7	5
63	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
64	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
65	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
66	Simultaneous constraints on the growth of structure and cosmic expansion from the multipole power spectra of the SDSS DR7 LRG sample. Monthly Notices of the Royal Astronomical Society, 2014, 439, 2515-2530.	4.4	146
67	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
68	Cosmic shear full nulling: sorting out dynamics, geometry and systematics. Monthly Notices of the Royal Astronomical Society, 2014, 445, 1526-1537.	4.4	23
69	Regularized cosmological power spectrum and correlation function in modified gravity models. Physical Review D, 2014, 90, .	4.7	37
70	Testing the equal-time angular-averaged consistency relation of the gravitational dynamics in N-body simulations. Physical Review D, 2014, 90, .	4.7	16
71	Cosmic propagators at two-loop order. Physical Review D, 2014, 89, .	4.7	31
72	Testing primordial non-Gaussianities on galactic scales at high redshift. Monthly Notices of the Royal Astronomical Society: Letters, 2014, 445, L129-L133.	3.3	6

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73	Anisotropic Clustering of the SDSS LRG as a Dual Probe of Growth of Structure and Cosmic Expansion. , 2014, , .		0
74	Matter power spectrum from a Lagrangian-space regularization of perturbation theory. Physical Review D, 2013, 87, .	4.7	36
75	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
76	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
77	Precision modeling of redshift-space distortions from a multipoint propagator expansion. Physical Review D, 2013, 87, .	4.7	55
78	Modeling the phase-space distribution around massive halos. Physical Review D, 2013, 88, .	4.7	24
79	Chasing unbiased spectra of the Universe. Physical Review D, 2013, 87, .	4.7	4
80	Scale dependence of the halo bias in general local-type non-Gaussian models I: analytical predictions and consistency relations. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 037-037.	5.4	8
81	Testing Gravity with the Stacked Phase Space around Galaxy Clusters. Physical Review Letters, 2012, 109, 051301.	7.8	62
82	PROBING PRIMORDIAL NON-GAUSSIANITY WITH WEAK-LENSING MINKOWSKI FUNCTIONALS. Astrophysical Journal, 2012, 760, 45.	4.5	13
83	REVISING THE HALOFIT MODEL FOR THE NONLINEAR MATTER POWER SPECTRUM. Astrophysical Journal, 2012, 761, 152.	4.5	842
84	Direct and fast calculation of regularized cosmological power spectrum at two-loop order. Physical Review D, 2012, 86, .	4.7	147
85	Forecasting the cosmological constraints with anisotropic baryon acoustic oscillations from multipole expansion. Physical Review D, 2011, 83, .	4.7	46
86	NON-GAUSSIAN ERROR CONTRIBUTION TO LIKELIHOOD ANALYSIS OF THE MATTER POWER SPECTRUM. Astrophysical Journal, 2011, 726, 7.	4.5	43
87	SUZAKU OBSERVATION OF A NEW MERGING GROUP OF GALAXIES AT A FILAMENTARY JUNCTION. Astrophysical Journal Letters, 2011, 727, L38.	8.3	8
88	The pairwise velocity probability density function in models with local primordial non-Gaussianity. Monthly Notices of the Royal Astronomical Society, 2011, 414, 289-303.	4.4	8
89	Baryon acoustic oscillations in 2D. II. Redshift-space halo clustering inN-body simulations. Physical Review D, 2011, 84, .	4.7	54
90	Systematic Survey of the Correlation between Northern HECR Events and SDSS Galaxies. Progress of Theoretical Physics, 2011, 126, 1123-1144.	2.0	4

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91	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
92	Baryon acoustic oscillations in 2D: Modeling redshift-space power spectrum from perturbation theory. Physical Review D, 2010, 82, .	4.7	312
93	Nonlinear evolution of baryon acoustic oscillations from improved perturbation theory in real and redshift spaces. Physical Review D, 2009, 80, .	4.7	116
94	Cross-correlation between UHECR arrival distribution and large-scale structure. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 031-031.	5.4	19
95	Modeling Nonlinear Evolution of Baryon Acoustic Oscillations: Convergence Regime of N-body Simulations and Analytic Models. Publication of the Astronomical Society of Japan, 2009, 61, 321-332.	2.5	117
96	Confronting the damping of the baryon acoustic oscillations with observation. Physical Review D, 2009, 79, .	4.7	4
97	SIMULATIONS OF BARYON ACOUSTIC OSCILLATIONS. II. COVARIANCE MATRIX OF THE MATTER POWER SPECTRUM. Astrophysical Journal, 2009, 700, 479-490.	4.5	113
98	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
99	Damping of the baryon acoustic oscillations in the matter power spectrum as a probe of the growth factor. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 031.	5.4	8
100	Bispectrum and Nonlinear Biasing of Galaxies: Perturbation Analysis, Numerical Simulation, and SDSS Galaxy Clustering. Publication of the Astronomical Society of Japan, 2007, 59, 93-106.	2.5	80
101	Cosmological evolution of orientations of cluster-sized dark matter haloes and their central galaxies in the Horizon-AGN simulation. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	6