Nickolay Y Gnedin

List of Publications by Year
in descending order

36 papers	2,944 citations	304743 22 h-index	395702 33 g-index
37 all docs	37 docs citations	37 times ranked	2429 citing authors

#	Article	IF	Citations
1	TOWARD A COMPLETE ACCOUNTING OF ENERGY AND MOMENTUM FROM STELLAR FEEDBACK IN GALAXY FORMATION SIMULATIONS. Astrophysical Journal, 2013, 770, 25.	4.5	371
2	Probing the Universe with the LyÂ forest -- I. Hydrodynamics of the low-density intergalactic medium. Monthly Notices of the Royal Astronomical Society, 1998, 296, 44-55.	4.4	344
3	Cosmological Reionization by Stellar Sources. Astrophysical Journal, 2000, 535, 530-554.	4.5	315
4	Multi-dimensional cosmological radiative transfer with a Variable Eddington Tensor formalism. New Astronomy, 2001, 6, 437-455.	1.8	216
5	ENVIRONMENTAL DEPENDENCE OF THE KENNICUTT-SCHMIDT RELATION IN GALAXIES. Astrophysical Journal, 2011, 728, 88.	4.5	198
6	The Fate of the First Galaxies. I. Selfâ€consistent Cosmological Simulations with Radiative Transfer. Astrophysical Journal, 2002, 575, 33-48.	4.5	148
7	COSMIC REIONIZATION ON COMPUTERS. I. DESIGN AND CALIBRATION OF SIMULATIONS. Astrophysical Journal, 2014, 793, 29.	4.5	139
8	THE X-FACTOR IN GALAXIES. I. DEPENDENCE ON ENVIRONMENT AND SCALE. Astrophysical Journal, 2012, 747, 124.	4.5	104
9	ON THE KENNICUTT-SCHMIDT RELATION OF LOW-METALLICITY HIGH-REDSHIFT GALAXIES. Astrophysical Journal, 2010, 714, 287-295.	4.5	103
10	NONUNIVERSAL STAR FORMATION EFFICIENCY IN TURBULENT ISM. Astrophysical Journal, 2016, 826, 200.	4.5	92
11	COSMIC REIONIZATION ON COMPUTERS. II. REIONIZATION HISTORY AND ITS BACK-REACTION ON EARLY GALAXIES. Astrophysical Journal, 2014, 793, 30.	4.5	91
12	The Physical Origin of Long Gas Depletion Times in Galaxies. Astrophysical Journal, 2017, 845, 133.	4.5	88
13	Accounting for baryonic effects in cosmic shear tomography: determining a minimal set of nuisance parameters using PCA. Monthly Notices of the Royal Astronomical Society, 2015, 454, 2451-2471.	4.4	77
14	COOLING AND HEATING FUNCTIONS OF PHOTOIONIZED GAS. Astrophysical Journal, Supplement Series, 2012, 202, 13.	7.7	75
15	Softened Lagrangian hydrodynamics for cosmology. Astrophysical Journal, Supplement Series, 1995, 97, 231.	7.7	71
16	Nonthermal dark matter mimicking an additional neutrino species in the early universe. Physical Review D, 2012, 85, .	4.7	69
17	How Galaxies Form Stars: The Connection between Local and Global Star Formation in Galaxy Simulations. Astrophysical Journal, 2018, 861, 4.	4.5	66
18	IMPLEMENTING THE DC MODE IN COSMOLOGICAL SIMULATIONS WITH SUPERCOMOVING VARIABLES. Astrophysical Journal, Supplement Series, 2011, 194, 46.	7.7	65

#	Article	IF	Citations
19	LINE OVERLAP AND SELF-SHIELDING OF MOLECULAR HYDROGEN IN GALAXIES. Astrophysical Journal, 2014, 795, 37.	4.5	65
20	THE X-FACTOR IN GALAXIES. II. THE MOLECULAR-HYDROGEN-STAR-FORMATION RELATION. Astrophysical Journal, 2012, 758, 127.	4.5	45
21	Inelastic dark matter as an efficient fuel for compact stars. Physical Review D, 2010, 81, .	4.7	39
22	Cosmic Reionization on Computers: Properties of the Post-reionization IGM. Astrophysical Journal, 2017, 841, 26.	4.5	32
23	Constraining the Tail End of Reionization Using LyÎ± Transmission Spikes. Astrophysical Journal, 2019, 876, 31.	4.5	19
24	The Distribution and Evolution of Quasar Proximity Zone Sizes. Astrophysical Journal, 2021, 911, 60.	4.5	19
25	What Sets the Slope of the Molecular Kennicuttâ€"Schmidt Relation?. Astrophysical Journal, 2019, 870, 79.	4.5	18
26	Spatial Decorrelation of Young Stars and Dense Gas as a Probe of the Star Formationâ€"Feedback Cycle in Galaxies. Astrophysical Journal, 2021, 918, 13.	4.5	18
27	COSMIC REIONIZATION ON COMPUTERS: NUMERICAL AND PHYSICAL CONVERGENCE. Astrophysical Journal, 2016, 821, 50.	4.5	17
28	Measuring the Density Fields around Bright Quasars at z â^¼ 6 with XQR-30 Spectra. Astrophysical Journal, 2022, 931, 29.	4.5	12
29	Performance Emulation of Cell-Based AMR Cosmology Simulations. , 2011, , .		7
30	Hierarchical task mapping of cell-based AMR cosmology simulations. , 2012, , .		7
31	Cosmic Reionization on Computers: Evolution of the Flux Power Spectrum. Astrophysical Journal, 2022, 928, 174.	4.5	5
32	Recovering Density Fields inside Quasar Proximity Zones at z â^¼ 6. Astrophysical Journal, 2021, 916, 118.	4.5	4
33	THE EFFECTS OF DARK MATTER ANNIHILATION ON COSMIC REIONIZATION. Astrophysical Journal, 2016, 833, 162.	4.5	2
34	Approximating Density Probability Distribution Functions Across Cosmologies. Astrophysical Journal, 2022, 929, 135.	4.5	2
35	A Hydro-particle-mesh Code for Efficient and Rapid Simulations of the Intracluster Medium. Astrophysical Journal, 2022, 925, 134.	4.5	1
36	On the Kennicutt-Schmidt Relation of Low-Metallicity High-Redshift Galaxies. , 2010, , .		0