

# Hyesung Kang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4633445/publications.pdf>

Version: 2024-02-01

52  
papers

3,075  
citations

201658

27  
h-index

182417

51  
g-index

52  
all docs

52  
docs citations

52  
times ranked

1761  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cosmological Shock Waves and Their Role in the Large-Scale Structure of the Universe. <i>Astrophysical Journal</i> , 2003, 593, 599-610.	4.5	372
2	Turbulence and Magnetic Fields in the Large-Scale Structure of the Universe. <i>Science</i> , 2008, 320, 909-912.	12.6	354
3	Properties of Cosmic Shock Waves in Large-Scale Structure Formation. <i>Astrophysical Journal</i> , 2000, 542, 608-621.	4.5	234
4	A cosmological hydrodynamic code based on the total variation diminishing scheme. <i>Astrophysical Journal</i> , 1993, 414, 1.	4.5	193
5	DIFFUSIVE SHOCK ACCELERATION SIMULATIONS OF RADIO RELICS. <i>Astrophysical Journal</i> , 2012, 756, 97.	4.5	151
6	The case for electron re-acceleration at galaxy cluster shocks. <i>Nature Astronomy</i> , 2017, 1, .	10.1	142
7	Cosmic-Ray Protons Accelerated at Cosmological Shocks and Their Impact on Groups and Clusters of Galaxies. <i>Astrophysical Journal</i> , 2001, 559, 59-69.	4.5	126
8	Cluster Accretion Shocks as Possible Acceleration Sites for Ultra-High-Energy Protons below the Greisen Cutoff. <i>Astrophysical Journal</i> , 1996, 456, 422.	4.5	109
9	Cosmological Shock Waves in the Large-Scale Structure of the Universe: Nongravitational Effects. <i>Astrophysical Journal</i> , 2007, 669, 729-740.	4.5	108
10	Numerical Studies of Cosmic-Ray Injection and Acceleration. <i>Astrophysical Journal</i> , 2002, 579, 337-358.	4.5	94
11	RE-ACCELERATION OF NON-THERMAL PARTICLES AT WEAK COSMOLOGICAL SHOCK WAVES. <i>Astrophysical Journal</i> , 2011, 734, 18.	4.5	89
12	Numerical studies of diffusive shock acceleration at spherical shocks. <i>Astroparticle Physics</i> , 2006, 25, 246-258.	4.3	87
13	Efficiency of Nonlinear Particle Acceleration at Cosmic Structure Shocks. <i>Astrophysical Journal</i> , 2005, 620, 44-58.	4.5	75
14	DIFFUSIVE SHOCK ACCELERATION AT COSMOLOGICAL SHOCK WAVES. <i>Astrophysical Journal</i> , 2013, 764, 95.	4.5	70
15	Properties of Merger Shocks in Merging Galaxy Clusters. <i>Astrophysical Journal</i> , 2018, 857, 26.	4.5	70
16	Deep Very Large Array Observations of the Merging Cluster CIZA J2242.8+5301: Continuum and Spectral Imaging. <i>Astrophysical Journal</i> , 2018, 865, 24.	4.5	56
17	Self-similar evolution of cosmic-ray-modified quasi-parallel plane shocks. <i>Astroparticle Physics</i> , 2007, 28, 232-246.	4.3	55
18	SHOCK WAVES AND COSMIC RAY ACCELERATION IN THE OUTSKIRTS OF GALAXY CLUSTERS. <i>Astrophysical Journal</i> , 2014, 785, 133.	4.5	54

#	ARTICLE	IF	CITATIONS
19	RADIO AND X-RAY SHOCKS IN CLUSTERS OF GALAXIES. <i>Astrophysical Journal</i> , 2015, 812, 49.	4.5	54
20	RE-ACCELERATION MODEL FOR RADIO RELICS WITH SPECTRAL CURVATURE. <i>Astrophysical Journal</i> , 2016, 823, 13.	4.5	49
21	Hot gas in the cold dark matter scenario: X-ray clusters from a high-resolution numerical simulation. <i>Astrophysical Journal</i> , 1994, 428, 1.	4.5	46
22	CURVED RADIO SPECTRA OF WEAK CLUSTER SHOCKS. <i>Astrophysical Journal</i> , 2015, 809, 186.	4.5	40
23	DIFFUSIVE SHOCK ACCELERATION IN TEST-PARTICLE REGIME. <i>Astrophysical Journal</i> , 2010, 721, 886-892.	4.5	39
24	INTERGALACTIC MAGNETIC FIELD AND ARRIVAL DIRECTION OF ULTRA-HIGH-ENERGY PROTONS. <i>Astrophysical Journal</i> , 2010, 710, 1422-1431.	4.5	38
25	Proton Acceleration in Weak Quasi-parallel Intracluster Shocks: Injection and Early Acceleration. <i>Astrophysical Journal</i> , 2018, 864, 105.	4.5	36
26	Electron Preacceleration in Weak Quasi-perpendicular Shocks in High-beta Intracluster Medium. <i>Astrophysical Journal</i> , 2019, 876, 79.	4.5	36
27	INJECTION OF $\hat{\nu}$ -LIKE SUPRATHERMAL PARTICLES INTO DIFFUSIVE SHOCK ACCELERATION. <i>Astrophysical Journal</i> , 2014, 788, 142.	4.5	31
28	Shock Acceleration Model for the Toothbrush Radio Relic. <i>Astrophysical Journal</i> , 2017, 840, 42.	4.5	27
29	Turbulence Dynamo in the Stratified Medium of Galaxy Clusters. <i>Astrophysical Journal</i> , 2019, 883, 138.	4.5	26
30	A Diffusive Shock Acceleration Model for Protons in Weak Quasi-parallel Intracluster Shocks. <i>Astrophysical Journal</i> , 2019, 883, 60.	4.5	22
31	NONTHERMAL RADIATION FROM RELATIVISTIC ELECTRONS ACCELERATED AT SPHERICALLY EXPANDING SHOCKS. <i>Journal of the Korean Astronomical Society</i> , 2015, 48, 9-20.	1.5	19
32	Effects of Alfvénic Drift on Diffusive Shock Acceleration at Weak Cluster Shocks. <i>Astrophysical Journal</i> , 2018, 856, 33.	4.5	17
33	RADIO EMISSION FROM WEAK SPHERICAL SHOCKS IN THE OUTSKIRTS OF GALAXY CLUSTERS. <i>Journal of the Korean Astronomical Society</i> , 2015, 48, 155-164.	1.5	14
34	Effects of Multiscale Plasma Waves on Electron Preacceleration at Weak Quasi-perpendicular Intracluster Shocks. <i>Astrophysical Journal</i> , 2021, 915, 18.	4.5	13
35	EFFECTS OF WAVE-PARTICLE INTERACTIONS ON DIFFUSIVE SHOCK ACCELERATION AT SUPERNOVA REMNANTS. <i>Journal of the Korean Astronomical Society</i> , 2013, 46, 49-63.	1.5	13
36	Reconstruction of Radio Relics and X-Ray Tails in an Off-axis Cluster Merger: Hydrodynamical Simulations of A115. <i>Astrophysical Journal</i> , 2020, 894, 60.	4.5	12

#	ARTICLE	IF	CITATIONS
37	DIFFUSIVE SHOCK ACCELERATION WITH MAGNETIC FIELD AMPLIFICATION AND ALFVÉNIC DRIFT. Journal of the Korean Astronomical Society, 2012, 45, 127-138.	1.5	11
38	A Simulation Study of Ultra-relativistic Jets. II. Structures and Dynamics of FR-II Jets. Astrophysical Journal, 2021, 920, 144.	4.5	10
39	Modeling of Cosmic-Ray Production and Transport and Estimation of Gamma-Ray and Neutrino Emissions in Starburst Galaxies. Astrophysical Journal, 2021, 907, 26.	4.5	9
40	Chandra Observations of the Spectacular A3411's 12 Merger Event. Astrophysical Journal, 2019, 887, 31.	4.5	9
41	SHOCK ACCELERATION MODEL WITH POSTSHOCK TURBULENCE FOR GIANT RADIO RELICS. Journal of the Korean Astronomical Society, 2017, 50, 93-103.	1.5	9
42	Gamma-Ray and Neutrino Emissions due to Cosmic-Ray Protons Accelerated at Intracluster Shocks in Galaxy Clusters. Astrophysical Journal, 2020, 892, 86.	4.5	8
43	Electron Firehose Instabilities in High- $\beta^2$ Intracluster Shocks. Astrophysical Journal, 2020, 892, 85.	4.5	8
44	Microinstabilities in the Transition Region of Weak Quasi-perpendicular Intracluster Shocks. Astrophysical Journal, 2021, 913, 35.	4.5	7
45	RE-ACCELERATION MODEL FOR THE 'TOOTHBRUSH' RADIO RELIC. Journal of the Korean Astronomical Society, 2016, 49, 83-92.	1.5	7
46	Filaments of galaxies as a clue to the origin of ultrahigh-energy cosmic rays. Science Advances, 2019, 5, eaau8227.	10.3	6
47	RE-ACCELERATION MODEL FOR THE 'SAUSAGE' RADIO RELIC. Journal of the Korean Astronomical Society, 2016, 49, 145-155.	1.5	6
48	Electron Preacceleration at Weak Quasi-perpendicular Intracluster Shocks: Effects of Preexisting Nonthermal Electrons. Astrophysical Journal, 2022, 925, 88.	4.5	5
49	A Simulation Study of Ultra-relativistic Jets's I. A New Code for Relativistic Hydrodynamics. Astrophysical Journal, 2021, 920, 143.	4.5	4
50	Effects of Forcing on Shocks and Energy Dissipation in Interstellar and Intracluster Turbulences. Astrophysical Journal, 2022, 926, 183.	4.5	3
51	Using Combined PIC and MHD to Model Particle Acceleration in Galaxy Cluster Shocks. Plasma and Fusion Research, 2019, 14, 4406119-4406119.	0.7	2
52	Particle Acceleration at Structure Formation Shocks. Nuclear and Particle Physics Proceedings, 2018, 297-299, 259-266.	0.5	0