Hiroki Akamatsu

List of Publications by Year
in descending order

78 papers	2,229 citations	279701 23 h-index	233338 45 g-index
78 all docs	78 docs citations	78 times ranked	1682 citing authors

#	Article	IF	Citations
1	MeerKATâ€™s view of double radio relic galaxy cluster Abellâ€‰3376. Publication of the Astronomical Society of Japan, 2023, 75, S97-S107.	1.0	5
2	Thermal Crosstalk of X-Ray Transition-Edge Sensor Micro-Calorimeters Under Frequency Domain Multiplexing Readout. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-7.	1.1	4
3	MeerKAT view of the diffuse radio sources in Abell 3667 and their interactions with the thermal plasma. Astronomy and Astrophysics, 2022, 659, A146.	2.1	27
4	The Planck clusters in the LOFAR sky. Astronomy and Astrophysics, 2022, 660, A78.	2.1	30
5	Small Size Transition-Edge Sensors for Future X-Ray Applications. Journal of Low Temperature Physics, 2022, 209, 256-262.	0.6	3
6	The NuSTAR, XMM-Newton, and Suzaku View of A3395 at the Intercluster Filament Interface. Astrophysical Journal, 2022, 930, 83.	1.6	1
7	ATHENA X-IFU Demonstration Model: First Joint Operation of the Main TES Array and its Cryogenic AntiCoincidence Detector (CryoAC). Journal of Low Temperature Physics, 2022, 209, 433-440.	0.6	10
8	Performance and uniformity of a kilo-pixel array of Ti/Au transition-edge sensor microcalorimeters. Review of Scientific Instruments, 2021, 92, 023101.	0.6	10
9	Frequency shift algorithm: Application to a frequency-domain multiplexing readout of x-ray transition-edge sensor microcalorimeters. Review of Scientific Instruments, 2021, 92, 033103.	0.6	6
10	Signatures of large-scale cold fronts in the optically-selected merging cluster HSCÂJ085024+001536. Publication of the Astronomical Society of Japan, 2021, 73, 584-595.	1.0	0
11	Jets from MRC 0600-399 bent by magnetic fields in the cluster Abell 3376. Nature, 2021, 593, 47-50.	13.7	16
12	Voyage through the hidden physics of the cosmic web. Experimental Astronomy, 2021, 51, 1043-1079.	1.6	9
13	Nonthermal phenomena in the center of Abell 1775. Astronomy and Astrophysics, 2021, 649, A37.	2.1	19
14	Frequency shift algorithm: Design of a baseband phase locked loop for frequency-domain multiplexing readout of x-ray transition-edge sensor microcalorimeters. Review of Scientific Instruments, 2021, 92, 073101.	0.6	4
15	A shock near the virial radius of the Perseus Cluster. Astronomy and Astrophysics, 2021, 652, A147.	2.1	5
16	Single Pixel Performance of a 32 Ã— 32 Ti/Au TES Array With Broadband X-Ray Spectra. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	2
17	Ti/Au TES 32 Ã— 32 Pixel Array: Uniformity, Thermal Crosstalk and Performance at Different X-Ray Energies. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	5
18	Elemental Abundances of the Hot Atmosphere of Luminous Infrared Galaxy Arp 299. Astrophysical Journal Letters, 2021, 918, L17.	3.0	4

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19	Impact of the Absorber-Coupling Design for Transition-Edge-Sensor X-Ray Calorimeters. Physical Review Applied, 2021, 16, .	1.5	4
20	Demonstration of MHz frequency domain multiplexing readout of 37 transition edge sensors for high-resolution x-ray imaging spectrometers. Applied Physics Letters, 2021, 119, .	1.5	14
21	Characterization of High Aspect-Ratio TiAu TES X-ray Microcalorimeter Array Under AC Bias. Journal of Low Temperature Physics, 2020, 199, 80-87.	0.6	12
22	Development of a Ti/Au TES Microcalorimeter Array as a Backup Sensor for the Athena/X-IFU Instrument. Journal of Low Temperature Physics, 2020, 199, 943-948.	0.6	32
23	Low-noise microwave SQUID multiplexed readout of 38 x-ray transition-edge sensor microcalorimeters. Applied Physics Letters, 2020, 117, 122601.	1.5	18
24	Study of TES Detector Transition Curve to Optimize the Pixel Design for Frequency-Division Multiplexing Readout. Journal of Low Temperature Physics, 2020, 199, 962-967.	0.6	8
25	X-ray study of the double source plane gravitational lens system Eye of Horus observed with XMMâ€“Newton. Monthly Notices of the Royal Astronomical Society, 2020, 491, 3411-3418.	1.6	0
26	Progress in the Development of Frequency-Domain Multiplexing for the X-ray Integral Field Unit on Board the Athena Mission. Journal of Low Temperature Physics, 2020, 199, 737-744.	0.6	15
27	ClG 0217+70: A massive merging galaxy cluster with a large radio halo and relics. Astronomy and Astrophysics, 2020, 642, L3.	2.1	5
28	High aspect ratio transition edge sensors for x-ray spectrometry. Journal of Applied Physics, 2020, 128, .	1.1	20
29	A six-degree-of-freedom micro-vibration acoustic isolator for low-temperature radiation detectors based on superconducting transition-edge sensors. Review of Scientific Instruments, 2019, 90, 055107.	0.6	13
30	Observations of a pre-merger shock in colliding clusters of galaxies. Nature Astronomy, 2019, 3, 838-843.	4.2	23
31	Diffuse Radio Emission from Galaxy Clusters. Space Science Reviews, 2019, 215, 1.	3.7	308
32	Evidence for a Merger-induced Shock Wave in ZwCl 0008.8+5215 with Chandra and Suzaku. Astrophysical Journal, 2019, 873, 64.	1.6	13
33	Evolutionary phases of merging clusters as seen by LOFAR. Astronomy and Astrophysics, 2019, 622, A25.	2.1	19
34	Intrinsic Losses and Noise of High-Q Lithographic MHz LC Resonators for Frequency Division Multiplexing. Journal of Low Temperature Physics, 2019, 194, 370-376.	0.6	7
35	The Physics of Galaxy Cluster Outskirts. Space Science Reviews, 2019, 215, 1.	3.7	102
36	Faraday Tomography of the SS433 Jet Termination Region. Galaxies, 2018, 6, 137.	1.1	4

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37	Study of Dissipative Losses in AC-Biased Mo/Au Bilayer Transition-Edge Sensors. Journal of Low Temperature Physics, 2018, 193, 356-364.	0.6	12
38	Active Tuning of the Resonance Frequencies of LC Bandpass Filters for Frequency Domain Multiplexed Readout of TES Detector Arrays. Journal of Low Temperature Physics, 2018, 193, 626-632.	0.6	8
39	Josephson Effects in Frequency-Domain Multiplexed TES Microcalorimeters and Bolometers. Journal of Low Temperature Physics, 2018, 193, 209-216.	0.6	18
40	X-ray study of the double radio relic Abell 3376 with Suzaku. Astronomy and Astrophysics, 2018, 618, A74.	2.1	32
41	LC Filters for FDM Readout of the X-IFU TES Calorimeter Instrument on Athena. Journal of Low Temperature Physics, 2018, 193, 661-667.	0.6	13
42	Crosstalk in an FDM Laboratory Setup and the Athena X-IFU End-to-End Simulator. Journal of Low Temperature Physics, 2018, 193, 533-538.	0.6	5
43	The focal plane assembly for the ATHENA x-ray integral field unit instrument (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50		1
44	Study of TES-Based Microcalorimeters of Different Size and Geometry Under AC Bias. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.1	13
45	Hitomi Constraints on the 3.5 keV Line in the Perseus Galaxy Cluster. Astrophysical Journal Letters, 2017, 837, L15.	3.0	84
46	Properties of the cosmological filament between two clusters: A possible detection of a large-scale accretion shock bySuzaku. Astronomy and Astrophysics, 2017, 606, A1.	2.1	42
47	Search for the warmâ€“hot intergalactic medium around Aâ€‰2744 using Suzaku. Publication of the Astronomical Society of Japan, 2017, 69, .	1.0	15
48	Suzaku observations of the outskirts of the galaxy cluster Abell 3395, including a filament toward Abell 3391. Publication of the Astronomical Society of Japan, 2017, 69, .	1.0	16
49	Deep LOFAR observations of the merging galaxy cluster CIZA J2242.8+5301. Monthly Notices of the Royal Astronomical Society, 2017, 471, 1107-1125.	1.6	56
50	Suzakuobservations of the merging galaxy cluster Abellâ€‰2255: The northeast radio relic. Astronomy and Astrophysics, 2017, 600, A100.	2.1	52
51	The quiescent intracluster medium in the core of the Perseus cluster. Nature, 2016, 535, 117-121.	13.7	348
52	Transition-edge sensor pixel parameter design of the microcalorimeter array for the x-ray integral field unit on Athena. Proceedings of SPIE, 2016, , .	0.8	32
53	TES-Based X-ray Microcalorimeter Performances Under AC Bias and FDM for Athena. Journal of Low Temperature Physics, 2016, 184, 436-442.	0.6	14
54	Development of Ultra-Low-Noise TES Bolometer Arrays. Journal of Low Temperature Physics, 2016, 184, 52-59.	0.6	24

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55	Optimising the multiplex factor of the frequency domain multiplexed readout of the TES-based microcalorimeter imaging array for the X-IFU instrument on the Athena x-ray observatory. Proceedings of SPIE, 2016, , .	0.8	9
56	Radio relics tracing the projected mass distribution in CIZAâ€‰J2242.8+5301. Publication of the Astronomical Society of Japan, 2015, 67, .	1.0	16
57	TURBULENT COSMIC-RAY REACCELERATION AT RADIO RELICS AND HALOS IN CLUSTERS OF GALAXIES. Astrophysical Journal, 2015, 815, 116.	1.6	29
58	Nearly Quantum Limited Two-Stage SQUID Amplifiers for the Frequency Domain Multiplexing of TES Based X-ray and Infrared Detectors. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	12
59	SuzakuX-ray study of the double radio relic galaxy cluster CIZA J2242.8+5301. Astronomy and Astrophysics, 2015, 582, A87.	2.1	48
60	The X-ray Integral Field Unit (X-IFU) for Athena. Proceedings of SPIE, 2014, , .	0.8	25
61	Josephson effects in an alternating current biased transition edge sensor. Applied Physics Letters, 2014, 105, .	1.5	28
62	Discovery of an overlapping cluster in the Abell 1674 field with Suzaku. Publication of the Astronomical Society of Japan, 2014, 66, 71.	1.0	1
63	Radiation Tolerance Evaluation of the Ti/Au Bilayer TES Microcalorimeter. Journal of Low Temperature Physics, 2014, 176, 344-349.	0.6	6
64	Development of Multilayer Readout Wiring TES Calorimeter for Future X-ray Missions. Journal of Low Temperature Physics, 2014, 176, 310-315.	0.6	7
65	Performance of TES X-ray Microcalorimeters with AC Bias Read-Out at MHz Frequencies. Journal of Low Temperature Physics, 2014, 176, 591.	0.6	13
66	Weak-Link Phenomena in AC-Biased Transition Edge Sensors. Journal of Low Temperature Physics, 2014, 176, 279.	0.6	16
67	Low-Bandwidth Operation of TES-Based Bolometer Operation in a Resistance Locked Loop. Journal of Low Temperature Physics, 2014, 176, 304.	0.6	0
68	Systematic X-Ray Analysis of Radio Relic Clusters with Suzaku. Publication of the Astronomical Society of Japan, 2013, 65, .	1.0	102
69	Suzaku X-Ray Observations of the Accreting NGC 4839 Group of Galaxies and a Radio Relic in the Coma Cluster. Publication of the Astronomical Society of Japan, 2013, 65, .	1.0	38
70	X-Ray View of the Shock Front in the Merging Cluster Abell 3376 with Suzaku. Publication of the Astronomical Society of Japan, 2012, 64, .	1.0	52
71	Properties of the Intracluster Medium of Abell 3667 Observed with Suzaku XIS. Publication of the Astronomical Society of Japan, 2012, 64, .	1.0	37
72	A multiplexer for the AC/DC characterization of TES-based bolometers and microcalorimeters. Proceedings of SPIE, 2012, , .	0.8	4

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73	HIGH-RESOLUTION X-RAY SPECTROSCOPY OF THE GALACTIC SUPERNOVA REMNANT PUPPIS A WITHXMM-NEWTON/RGS. Astrophysical Journal, 2012, 756, 49.	1.6	36
74	Development of Laboratory Experimental System to Clarify Solar Wind Charge Exchange Mechanism with TES Microcalorimeter. Journal of Low Temperature Physics, 2012, 167, 771-776.	0.6	1
75	X-Ray Study of the Outer Region of Abell 2142 with Suzaku. Publication of the Astronomical Society of Japan, 2011, 63, S1019-S1033.	1.0	70
76	X-Ray Temperature and Mass Measurements to the Virial Radius of Abell 1413 with Suzaku. Publication of the Astronomical Society of Japan, 2010, 62, 371-389.	1.0	112
77	Optimization of Structure of Large Format TES Arrays. IEEE Transactions on Applied Superconductivity, 2009, 19, 456-459.	1.1	1
78	Spectral study of the diffuse synchrotron source in the galaxy cluster Abell 523. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	4