Maurice A Leutenegger

List of Publications by Year
in descending order

83	2,091	257357	265120
papers	citations	24 h-index	42 g-index

86	86	86	1766
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The quiescent intracluster medium in the core of the Perseus cluster. Nature, 2016, 535, 117-121.	13.7	348
2	High resolution X-ray spectroscopy of Î¶Puppis with the XMM-Newton reflection grating spectrometer. Astronomy and Astrophysics, 2001, 365, L312-L317.	2.1	170
3	Concept of the X-ray Astronomy Recovery Mission. , 2018, , .		85
4	Hitomi Constraints on the 3.5 keV Line in the Perseus Galaxy Cluster. Astrophysical Journal Letters, 2017, 837, L15.	3.0	84
5	Measurements and Analysis of Heliumâ€like Triplet Ratios in the Xâ€Ray Spectra of Oâ€Type Stars. Astrophysical Journal, 2006, 650, 1096-1110.	1.6	65
6	Measuring mass-loss rates and constraining shock physics using X-ray line profiles of O stars from the Chandra archive. Monthly Notices of the Royal Astronomical Society, 2014, 439, 908-923.	1.6	65
7	The ASTRO-H X-ray Observatory. Proceedings of SPIE, 2012, , .	0.8	63
8	Atmospheric gas dynamics in the Perseus cluster observed with Hitomi. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	57
9	Wind clumping and the wind-wind collision zone in the Wolf-Rayet binaryÎ³2â€‰Velorum. Astronomy and Astrophysics, 2004, 422, 177-191.	2.1	55
10	The Astro-H high resolution soft x-ray spectrometer. Proceedings of SPIE, 2016, , .	0.8	51
11	The ASTRO-H (Hitomi) x-ray astronomy satellite. Proceedings of SPIE, 2016, , .	0.8	47
12	Atomic data and spectral modeling constraints from high-resolution X-ray observations of the Perseus cluster with Hitomi. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	46
13	The ASTRO-H X-ray astronomy satellite. Proceedings of SPIE, 2014, , .	0.8	45
14	Wind signatures in the X-ray emission-line profiles of the late-O supergiant Â Orionis. Monthly Notices of the Royal Astronomical Society, 2006, 368, 1905-1916.	1.6	44
15	Long term variability of Cygnus X-1. Astronomy and Astrophysics, 2015, 576, A117.	2.1	38
16	Chandra X-ray spectroscopy of the very early O supergiant HD 93129A: constraints on wind shocks and the mass-loss rate. Monthly Notices of the Royal Astronomical Society, 2011, 415, 3354-3364.	1.6	36
17	A generalized porosity formalism for isotropic and anisotropic effective opacity and its effects on X-ray line attenuation in clumped O star winds. Monthly Notices of the Royal Astronomical Society, 2012, 420, 1553-1561.	1.6	36
18	Status of x-ray imaging and spectroscopy mission (XRISM). , 2020, , .		36

#	Article	IF	Citations
19	On the Importance of the Interclump Medium for Superionization: O <scp>vi</scp> Formation in the Wind of Î¶ Puppis. Astrophysical Journal, 2008, 685, L149-L152.	1.6	33
20	Resolve Instrument on X-ray Astronomy Recovery Mission (XARM). Journal of Low Temperature Physics, 2018, 193, 991-995.	0.6	31
21	MODELING BROADBAND X-RAY ABSORPTION OF MASSIVE STAR WINDS. Astrophysical Journal, 2010, 719, 1767-1774.	1.6	29
22	Soft x-ray spectrometer (SXS): the high-resolution cryogenic spectrometer onboard ASTRO-H. Proceedings of SPIE, 2014, , .	0.8	29
23	Measurements of resonant scattering in the Perseus Cluster core with Hitomi SXS. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	29
24	CONSTRAINTS ON POROSITY AND MASS LOSS IN O-STAR WINDS FROM THE MODELING OF X-RAY EMISSION LINE PROFILE SHAPES. Astrophysical Journal, 2013, 770, 80.	1.6	28
25	Hitomi observation of radio galaxy NGCâ€‰1275: The first X-ray microcalorimeter spectroscopy of Fe-KÎ± line emission from an active galactic nucleus. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	27
26	Evidence for the Importance of Resonance Scattering in Xâ€Ray Emission Line Profiles of the O Star Î¶ Puppis. Astrophysical Journal, 2007, 659, 642-649.	1.6	25
27	High Resolution Photoexcitation Measurements Exacerbate the Long-Standing Fe XVII Oscillator Strength Problem. Physical Review Letters, 2020, 124, 225001.	2.9	25
28	X-ray, UV and optical analysis of supergiants: Ïµ Ori. Monthly Notices of the Royal Astronomical Society, 2016, 456, 2907-2936.	1.6	22
29	Xâ€Ray Spectroscopy of Î· Carinae withXMMâ€Newton. Astrophysical Journal, 2003, 585, 1015-1023.	1.6	21
30	Measuring the shock-heating rate in the winds of O stars using X-ray line spectra. Monthly Notices of the Royal Astronomical Society, 2014, 444, 3729-3737.	1.6	21
31	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	21
32	A mass-loss rate determination for Î¶ Puppis from the quantitative analysis of X-ray emission-line profiles. Monthly Notices of the Royal Astronomical Society, 2010, , no-no.	1.6	20
33	A COORDINATED X-RAY AND OPTICAL CAMPAIGN OF THE NEAREST MASSIVE ECLIPSING BINARY,Î¸ORIONIS Aa. III. ANALYSIS OF OPTICAL PHOTOMETRIC (MOST) AND SPECTROSCOPIC (GROUND-BASED) VARIATIONS. Astrophysical Journal, 2015, 809, 134.	1.6	18
34	Measurement of Anomalously Strong Emission from the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1</mml:mn><mml:mi>s</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:mn>9</mml:mn><mml:mi>p</mml:mi></mml:math>Transition in the Spectrum of H-Like Phosphorus Following Charge Exchange with Molecular Hydrogen. Physical Review Letters, 2010, 105, 063201.	2.9	16
35	Temporal Gain Correction for X-ray Calorimeter Spectrometers. Journal of Low Temperature Physics, 2016, 184, 498-504.	0.6	16
36	Calibration sources and filters of the soft x-ray spectrometer instrument on the Hitomi spacecraft. Journal of Astronomical Telescopes, Instruments, and Systems, 2017, 4, 1.	1.0	16

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37	In-orbit operation of the ASTRO-H SXS. , 2016, , .		15
38	The design, implementation, and performance of the Atro-H SXS calorimeter array and anti-coincidence detector. , 2016, , .		15
39	Radiography in high mass X-ray binaries. Astronomy and Astrophysics, 2020, 643, A9.	2.1	14
40	Observation of highly disparate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>K</mml:mi></mml:math>-shell x-ray spectra produced by charge exchange with bare mid-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Z</mml:mi></mml:math>ions. Physical Review A, 2014, 90, .	1.0	12
41	Rest-wavelength fiducials for the ITER core imaging x-ray spectrometer. Review of Scientific Instruments, 2012, 83, 10E111.	0.6	11
42	Extended Line Spread Function of TES Microcalorimeters With Au/Bi Absorbers. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	11
43	In-flight performance of the Soft X-ray Spectrometer detector system on Astro-H. , 2016, , .		10
44	In-flight verification of the calibration and performance of the ASTRO-H (Hitomi) Soft X-Ray Spectrometer. Proceedings of SPIE, 2016, , .	0.8	10
45	Feeding and Feedback in the Powerful Radio Galaxy 3C 120. Astrophysical Journal, 2017, 838, 16.	1.6	10
46	In-flight calibration of Hitomi Soft X-ray Spectrometer. (1) Background. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	10
47	THE COMPLEX CIRCUMNUCLEAR ENVIRONMENT OF THE BROAD-LINE RADIO GALAXY 3C 390.3 REVEALED BY CHANDRA HETG. Astrophysical Journal, 2016, 830, 98.	1.6	9
48	Chandra grating spectroscopy of embedded wind shock X-ray emission from O stars shows low plasma temperatures and significant wind absorption. Monthly Notices of the Royal Astronomical Society, 2021, 503, 715-725.	1.6	9
49	High-resolution Laboratory Measurements of K-shell X-Ray Line Polarization and Excitation Cross Sections in Helium-like S XV Ions. Astrophysical Journal, 2021, 914, 34.	1.6	9
50	The design, implementation, and performance of the Astro-H SXS aperture assembly and blocking filters. , 2016, , .		9
51	In-flight performance of pulse processing system of the ASTRO-H soft x-ray spectrometer. , 2016, , .		9
52	Resolving X-Ray Sources from B Stars Spectroscopically: The Example of Î¼ Leporis. Astrophysical Journal, 2004, 612, L65-L68.	1.6	8
53	Ground calibration of the Astro-H (Hitomi) soft x-ray spectrometer. , 2016, , .		8
54	High-resolution Charge Exchange Spectra with L-shell Nickel Show Striking Differences from Models. Astrophysical Journal Letters, 2018, 868, L17.	3.0	8

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55	Search for thermal X-ray features from the Crab nebula with the Hitomi soft X-ray spectrometer. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	8
56	Highly charged ions in a new era of high resolution Xâ€ray astrophysics. X-Ray Spectrometry, 2020, 49, 218-233.	0.9	8
57	Simple, compact, high-resolution monochromatic x-ray source for characterization of x-ray calorimeter arrays. Review of Scientific Instruments, 2020, 91, 083110.	0.6	8
58	High-Precision Determination of Oxygen <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>K</mml:mi></mml:mrow><mml:mrow><mml:mi>β</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math> Transition Energy Excludes Incongruent Motion of Interstellar Oxygen. Physical Review Letters, 2020, 125, 243001.	2.9	8
59	Chandra spectral measurements of the O supergiant Î¶ Puppis indicate a surprising increase in the wind mass-loss rate over 18Âyr. Monthly Notices of the Royal Astronomical Society, 2020, 499, 6044-6052.	1.6	8
60	The transition-edge EBIT microcalorimeter spectrometer. , 2014, , .		7
61	In-flight calibration of Hitomi Soft X-ray Spectrometer. (3) Effective area. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	7
62	In-flight verification of the calibration and performance of the ASTRO-H (Hitomi) Soft X-ray Spectrometer. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	7
63	Design, implementation, and performance of the Astro-H soft x-ray spectrometer aperture assembly and blocking filters. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	6
64	Hitomi observations of the LMC SNR Nâ€‰132â€‰D: Highly redshifted X-ray emission from iron ejecta. Publication of the Astronomical Society of Japan, 2018, 70, .	1.0	5
65	Energy scale calibration and drift correction of the X-IFU. , 2018, , .		5
66	Poisson vs. Gaussian statistics for sparse X-ray data: Application to the soft X-ray spectrometer. Publication of the Astronomical Society of Japan, 2019, 71, .	1.0	4
67	In-flight performance of the soft x-ray spectrometer detector system on Astro-H. Journal of Astronomical Telescopes, Instruments, and Systems, 2018, 4, 1.	1.0	4
68	Charge exchange measurements with an x-ray calorimeter at an electron beam ion trap. Physica Scripta, 2013, T156, 014006.	1.2	3
69	Charge exchange, from the sky to the laboratory: A method to determine stateâ€selective crossâ€sections for improved modeling. Astronomische Nachrichten, 2020, 341, 197-202.	0.6	3
70	Performance and results of the reflection grating spectrometers onboard XMM-Newton. , 2003, 4851, 196.		2
71	Studies of highly charged iron ions using electron beam ion traps for interpreting astrophysical spectra. Physica Scripta, 2013, T156, 014001.	1.2	2
72	Characterization of an atomic hydrogen source for charge exchange experiments. Review of Scientific Instruments, 2016, 87, 11E516.	0.6	2

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73	In-Orbit Performance of the Digital Electronics for the X-Ray Microcalorimeter Onboard the Hitomi Satellite. Journal of Low Temperature Physics, 2018, 193, 505-511.	0.6	2
74	Fe xvii 2pâ€“3s Line Ratio Diagnostic of Shock Formation Radius in O Stars. Astrophysical Journal, 2021, 917, 105.	1.6	2
75	Helium-like X-ray line complexes show that the hottest plasma on the O supergiant Î¶ Puppis is in its wind. Monthly Notices of the Royal Astronomical Society, 2022, 513, 1609-1622.	1.6	2
76	X-ray spectral diagnostics of activity in massive stars. Proceedings of the International Astronomical Union, 2010, 6, 348-353.	0.0	1
77	Parametric Characterization of TES Detectors Under DC Bias. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	1
78	A new benchmark of soft X-ray transition energies of $$mathrm {Ne}$$, $$mathrm {CO}_2$$, and $$mathrm {SF}_6$$: paving a pathway towards ppm accuracy. European Physical Journal D, 2022, 76, 38.	0.6	1
79	Atomic physics of shocked plasma in winds of massive stars. , 2012, , .		0
80	Accelerator experiments with soft protons and hyper-velocity dust particles: application to ongoing projects of future x-ray missions. , 2012, , .		0
81	Unresolved puzzles in the x-ray emission produced by charge exchange measured on electron beam ion traps. , 2013, , .		0
82	X-rays from magnetic massive OB stars. Proceedings of the International Astronomical Union, 2013, 9, 330-333.	0.0	0
83	Calibration of the microcalorimeter spectrometer on-board the Hitomi (Astro-H) observatory (invited). Review of Scientific Instruments, 2016, 87, 11D503.	0.6	0