

Alexander L Mackinnon

List of Publications by Year in descending order

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65
papers

1,343
citations

393982

19
h-index

344852

36
g-index

67
all docs

67
docs citations

67
times ranked

904
citing authors

#	ARTICLE	IF	CITATIONS
1	Hard X-ray emission from the solar corona. <i>Astronomy and Astrophysics Review</i> , 2008, 16, 155-208.	9.1	206
2	Properties of Energetic Ions in the Solar Atmosphere from $\hat{\text{I}}^3$ -Ray and Neutron Observations. <i>Space Science Reviews</i> , 2011, 159, 167-224.	3.7	97
3	Local re-acceleration and a modified thick target model of solar flare electrons. <i>Astronomy and Astrophysics</i> , 2009, 508, 993-1000.	2.1	89
4	Compton backscattered and primary X-rays from solar flares: angle dependent Green's function correction for photospheric albedo. <i>Astronomy and Astrophysics</i> , 2006, 446, 1157-1163.	2.1	86
5	Coronal $\hat{\text{I}}^3$ -Ray Bremsstrahlung from Solar Flare-accelerated Electrons. <i>Astrophysical Journal</i> , 2008, 678, L63-L66.	1.6	68
6	Chromospheric magnetic field and density structure measurements using hard X-rays in a flaring coronal loop. <i>Astronomy and Astrophysics</i> , 2008, 489, L57-L60.	2.1	65
7	LOFAR tied-array imaging of Type III solar radio bursts. <i>Astronomy and Astrophysics</i> , 2014, 568, A67.	2.1	60
8	Solar flares at submillimeter wavelengths. <i>Astronomy and Astrophysics Review</i> , 2013, 21, 1.	9.1	55
9	High energy particles accelerated during the large solar flare of 1990 May 24: X $\hat{\text{I}}^3$ -ray observations. <i>Astronomy and Astrophysics</i> , 2003, 412, 865-874.	2.1	45
10	LOFAR tied-array imaging and spectroscopy of solar S bursts. <i>Astronomy and Astrophysics</i> , 2015, 580, A65.	2.1	34
11	Quantitative analysis of hard X-ray ?footpoint? flares observed by the Solar Maximum Mission. <i>Solar Physics</i> , 1985, 99, 231-262.	1.0	31
12	Beam heating in solar flares - Electrons or protons?. <i>Astrophysical Journal, Supplement Series</i> , 1990, 73, 343.	3.0	31
13	Cross-Field Diffusion of Electrons in Tangled Magnetic Fields and Implications for Coronal Fine Structure. <i>Astrophysical Journal</i> , 2006, 646, 615-624.	1.6	30
14	Origin of the 30 THz Emission Detected During the Solar Flare on 2012 March 13 at 17:20 UT. <i>Solar Physics</i> , 2015, 290, 2809-2826.	1.0	25
15	Tracking of an electron beam through the solar corona with LOFAR. <i>Astronomy and Astrophysics</i> , 2018, 611, A57.	2.1	23
16	Modelling the radio pulses of an ultracool dwarf. <i>Astronomy and Astrophysics</i> , 2011, 525, A39.	2.1	23
17	Turbulent cross-field transport of non-thermal electrons in coronal loops: theory and observations. <i>Astronomy and Astrophysics</i> , 2011, 535, A18.	2.1	23
18	Fast electron slowing-down and diffusion in a high temperature coronal X-ray source. <i>Astronomy and Astrophysics</i> , 2005, 438, 1107-1114.	2.1	20

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19	Particle acceleration by fluctuating electric fields at a magnetic field null point. <i>Astronomy and Astrophysics</i> , 2007, 472, 623-632.	2.1	20
20	Particle Acceleration in Dynamical Collisionless Reconnection. <i>Solar Physics</i> , 1997, 172, 279-286.	1.0	19
21	Regularized Energy-Dependent Solar Flare Hard X-Ray Spectral Index. <i>Solar Physics</i> , 2005, 227, 299-310.	1.0	18
22	Calibration of the Fast Neutron Imaging Telescope (FNIT) Prototype Detector. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 2947-2954.	1.2	16
23	Return current and collisional effects in nonthermal electron beams with pulsed injection. <i>Solar Physics</i> , 1990, 129, 325-341.	1.0	15
24	NUMERICAL SIMULATIONS OF CHROMOSPHERIC HARD X-RAY SOURCE SIZES IN SOLAR FLARES. <i>Astrophysical Journal</i> , 2012, 752, 4.	1.6	15
25	Coulomb Energy Losses in the Solar Corona and the Proton Energy Budget in Flares. <i>Astrophysical Journal</i> , 1997, 485, 430-433.	1.6	14
26	ELECTRON-BEAM-INDUCED RADIO EMISSION FROM ULTRACOOL DWARFS. <i>Astrophysical Journal</i> , 2012, 752, 60.	1.6	14
27	What Can Be Learned About Competing Acceleration Models from Multiwavelength Observations?. <i>Lecture Notes in Physics</i> , 2003, , 127-160.	0.3	14
28	High-energy gamma-ray emission from solar flares: Constraining the accelerated proton spectrum. <i>Solar Physics</i> , 1994, 151, 147-167.	1.0	13
29	Effect of binary collisions on electron acceleration in magnetic reconnection. <i>Astronomy and Astrophysics</i> , 2014, 561, A107.	2.1	13
30	Test and simulation of a Fast Neutron Imaging Telescope. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 406-414.	0.7	12
31	Do fast protons and $\hat{L}\pm$ particles have the same energy distributions in solar flares?. <i>Solar Physics</i> , 2004, 223, 155-168.	1.0	10
32	Development of the Fast Neutron Imaging Telescope. , 0, , .		10
33	Acceleration of charged particles by fluctuating and steady electric fields in a X-type magnetic field. <i>Advances in Space Research</i> , 2011, 48, 884-898.	1.2	10
34	CORONAL RADIATION BELTS. <i>Astrophysical Journal</i> , 2009, 698, L86-L89.	1.6	8
35	On the bremsstrahlung efficiency of nonthermal hard X-ray source models. <i>Solar Physics</i> , 1989, 122, 303-311.	1.0	7
36	Alfvén turbulence and the time dependence of non-thermal line broadening in flares. <i>Solar Physics</i> , 1993, 144, 155-168.	1.0	7

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37	Inverse Compton X-rays from relativistic flare electrons and positrons. <i>Astronomy and Astrophysics</i> , 2010, 510, A29.	2.1	7
38	CHARGE-EXCHANGE LIMITS ON LOW-ENERGY $\hat{1}\pm$ -PARTICLE FLUXES IN SOLAR FLARES. <i>Astrophysical Journal</i> , 2012, 752, 84.	1.6	7
39	Particle Acceleration in the Presence of Weak Turbulence at an X-Type Neutral Point. <i>Solar Physics</i> , 2012, 280, 575-590.	1.0	7
40	Wavelets, Intermittency and Solar Flare Hard X-rays 2. LIM Analysis of High Time Resolution BATSE Data. <i>Solar Physics</i> , 2013, 282, 483-501.	1.0	7
41	Self-consistent Modeling of Gamma-ray Spectra from Solar Flares with the Monte Carlo Simulation Package FLUKA. <i>Solar Physics</i> , 2019, 294, 1.	1.0	7
42	Interpretation of temporal features in an unusual X-ray and microwave burst. <i>Solar Physics</i> , 1986, 104, 191-198.	1.0	6
43	Warm thick target solar $\hat{1}^3$ -ray source revisited. <i>Astronomy and Astrophysics</i> , 2003, 409, 745-753.	2.1	6
44	Wavelets, Intermittency and Solar Flare Hard X-rays 1. Local Intermittency Measure in Cascade and Avalanche Scenarios. <i>Solar Physics</i> , 2013, 282, 471-481.	1.0	5
45	Temporal behaviour of the thermal model of hard X-ray bursts. <i>Solar Physics</i> , 1985, 98, 293-304.	1.0	4
46	Solar hard X-ray halo from decaying neutrons. <i>Astronomy and Astrophysics</i> , 2007, 462, 763-767.	2.1	4
47	Advanced characterization and simulation of SONNE: a fast neutron spectrometer for Solar Probe Plus. <i>Proceedings of SPIE</i> , 2009, , .	0.8	4
48	Solar Particle Acceleration Radiation and Kinetics (SPARK). <i>Experimental Astronomy</i> , 2012, 33, 237-269.	1.6	4
49	FLUKA Simulations of Pion Decay Gamma-Radiation from Energetic Flare Ions. <i>Solar Physics</i> , 2020, 295, 1.	1.0	4
50	Thermalisation and hard X-ray bremsstrahlung efficiency of self-interacting solar flare fast electrons. <i>Astronomy and Astrophysics</i> , 2010, 520, A72.	2.1	4
51	Particle orbits near a neutral point. <i>Space Science Reviews</i> , 1994, 68, 117-118.	3.7	3
52	Radiative Diagnoses of Energetic Particles. , 2006, , 157.		3
53	Design optimization and performance capabilities of the fast neutron imaging telescope (FNIT). , 2007, , .		3
54	Contribution of energetic ion secondary particles to solar flare radio spectra. <i>Proceedings of the International Astronomical Union</i> , 2016, 12, 120-123.	0.0	3

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55	The high-energy Sun - probing the origins of particle acceleration on our nearest star. <i>Experimental Astronomy</i> , 2022, 54, 335-360.	1.6	3
56	Comments on the thick-target interpretation of solar X-ray burst ?stereo? observations. <i>Solar Physics</i> , 1986, 106, 415-419.	1.0	2
57	Interpretation of solar flare $\hat{1}^3$ -Ray continuum observations. <i>Advances in Space Research</i> , 1993, 13, 259-262.	1.2	2
58	One-dimensional percolation models of transient phenomena. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1997, 243, 1-13.	1.2	1
59	Introduction: The High-energy Corona â€™ Waves, Eruptions, Particles. , 2007, , 1-11.		1
60	Proton energy deposition in converging magnetic fields. <i>Advances in Space Research</i> , 1991, 11, 331-335.	1.2	0
61	Heating of astrophysical plasma by mildly-relativistic non-thermal protons. <i>Astrophysics and Space Science</i> , 1991, 178, 287-298.	0.5	0
62	Fluctuating electric field particle acceleration at a magnetic field null point. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
63	Mapping radio emitting-region on low-mass stars and brown dwarfs. <i>EPJ Web of Conferences</i> , 2011, 16, 06013.	0.1	0
64	Remote sensing of low-energy SEPs via charge exchange. , 2013, , .		0
65	Modelling magnetised medium particle transport in the guiding centre limit with GEANT4. <i>Astronomy and Astrophysics</i> , 2021, 654, A82.	2.1	0