Leon Golub

List of Publications by Year
in descending order

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149	9,999	44066	34984
papers	citations	48 h-index	98 g-index

162	162	162	3084
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 17-40.	2.5	3,385
2	Solar Wind Electrons Alphas and Protons (SWEAP) Investigation: Design of the Solar Wind and Coronal Plasma Instrument Suite for Solar Probe Plus. Space Science Reviews, 2016, 204, 131-186.	8.1	439
3	Initial Calibration of the Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 41-66.	2.5	352
4	AlfvÃ©nic velocity spikes and rotational flows in the near-Sun solar wind. Nature, 2019, 576, 228-231.	27.8	311
5	Hot explosions in the cool atmosphere of the Sun. Science, 2014, 346, 1255726.	12.6	234
6	Prevalence of small-scale jets from the networks of the solar transition region and chromosphere. Science, 2014, 346, 1255711.	12.6	232
7	Continuous Plasma Outflows from the Edge of a Solar Active Region as a Possible Source of Solar Wind. Science, 2007, 318, 1585-1588.	12.6	189
8	A Study of Polar Jet Parameters Based on Hinode XRT Observations. Publication of the Astronomical Society of Japan, 2007, 59, S771-S778.	2.5	159
9	Temperature and Emission-Measure Profiles along Long-lived Solar Coronal Loops Observed with the [ITAL]Transition Region and Coronal Explorer[/ITAL]. Astrophysical Journal, 1999, 517, L155-L158.	4.5	157
10	Evidence of nonthermal particles in coronal loops heated impulsively by nanoflares. Science, 2014, 346, 1255724.	12.6	148
11	OBSERVATIONS AND INTERPRETATION OF A LOW CORONAL SHOCK WAVE OBSERVED IN THE EUV BY THE SDO/AIA. Astrophysical Journal, 2011, 738, 160.	4.5	137
12	Magnetic properties of x-ray bright points. Solar Physics, 1977, 53, 111-121.	2.5	135
13	FANâ€“SPINE TOPOLOGY FORMATION THROUGH TWO-STEP RECONNECTION DRIVEN BY TWISTED FLUX EMERGENCE. Astrophysical Journal, 2009, 704, 485-495.	4.5	125
14	Steady Flows Detected in Extreme-Ultraviolet Loops. Astrophysical Journal, 2002, 567, L89-L92.	4.5	125
15	AN INTERFACE REGION IMAGING SPECTROGRAPH FIRST VIEW ON SOLAR SPICULES. Astrophysical Journal Letters, 2014, 792, L15.	8.3	115
16	OBSERVATIONS AND MAGNETIC FIELD MODELING OF THE FLARE/CORONAL MASS EJECTION EVENT ON 2010 APRIL 8. Astrophysical Journal, 2011, 734, 53.	4.5	113
17	On the prevalence of small-scale twist in the solar chromosphere and transition region. Science, 2014, 346, 1255732.	12.6	111
18	The High-Resolution Coronal Imager (Hi-C). Solar Physics, 2014, 289, 4393-4412.	2.5	104

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19	HIGH-RESOLUTION OBSERVATIONS OF THE SHOCK WAVE BEHAVIOR FOR SUNSPOT OSCILLATIONS WITH THE INTERFACE REGION IMAGING SPECTROGRAPH. Astrophysical Journal, 2014, 786, 137.	4.5	102
20	OBSERVING CORONAL NANOFLARES IN ACTIVE REGION MOSS. Astrophysical Journal Letters, 2013, 770, L1.	8.3	99
21	Slipping Magnetic Reconnection in Coronal Loops. Science, 2007, 318, 1588-1591.	12.6	98
22	The three-dimensional structures of X-ray bright points. Solar Physics, 1994, 151, 57-74.	2.5	96
23	ATMOSPHERIC IMAGING ASSEMBLY OBSERVATIONS OF HOT FLARE PLASMA. Astrophysical Journal Letters, 2011, 727, L52.	8.3	96
24	Hinode,TRACE,SOHO, and Groundâ€based Observations of a Quiescent Prominence. Astrophysical Journal, 2008, 686, 1383-1396.	4.5	95
25	Rapid changes in the fine structure of a coronal â€˜bright pointâ€™ and a small coronal â€˜active regionâ€™. Solar Physics, 1979, 63, 119-126.	2.5	91
26	HOMOLOGOUS HELICAL JETS: OBSERVATIONS BYIRIS,SDO, ANDHINODEAND MAGNETIC MODELING WITH DATA-DRIVEN SIMULATIONS. Astrophysical Journal, 2015, 801, 83.	4.5	89
27	The unresolved fine structure resolved: IRIS observations of the solar transition region. Science, 2014, 346, 1255757.	12.6	87
28	The Hinode X-Ray Telescope (XRT): Camera Design, Performance and Operations. Solar Physics, 2008, 249, 263-279.	2.5	84
29	STATISTICAL STUDY OF CORONAL MASS EJECTIONS WITH AND WITHOUT DISTINCT LOW CORONAL SIGNATURES. Astrophysical Journal, 2010, 722, 289-301.	4.5	82
30	Dynamic Responses to Magnetic Reconnection in Solar Arcades. Astrophysical Journal, 1998, 495, 491-501.	4.5	80
31	OBSERVATIONS AND NONLINEAR FORCE-FREE FIELD MODELING OF ACTIVE REGION 10953. Astrophysical Journal, 2009, 691, 105-114.	4.5	73
32	ON THE STRUCTURE AND EVOLUTION OF COMPLEXITY IN SIGMOIDS: A FLUX EMERGENCE MODEL. Astrophysical Journal, 2009, 691, 1276-1291.	4.5	70
33	SIMULTANEOUS IRIS AND HINODE/EIS OBSERVATIONS AND MODELING OF THE 2014 OCTOBER 27 X2.0ÂCLASS FLARE. Astrophysical Journal, 2016, 816, 89.	4.5	70
34	A Statistical Study of Shear Motion of the Footpoints in Twoâ€Ribbon Flares. Astrophysical Journal, 2007, 655, 606-614.	4.5	63
35	OBSERVATIONS OF SUBARCSECOND BRIGHT DOTS IN THE TRANSITION REGION ABOVE SUNSPOTS WITH THE INTERFACE REGION IMAGING SPECTROGRAPH. Astrophysical Journal Letters, 2014, 790, L29.	8.3	63
36	Apparent Flows above an Active Region Observed with the [ITAL]Transition Region and Coronal Explorer[/ITAL]. Astrophysical Journal, 2001, 553, L81-L84.	4.5	62

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37	Distribution of lifetimes for coronal soft X-ray bright points. Solar Physics, 1976, 49, 79.	2.5	61
38	X-Ray Jet Dynamics in a Polar Coronal Hole Region. Solar Physics, 2009, 254, 259-269.	2.5	61
39	DETECTION OF SUPERSONIC DOWNFLOWS AND ASSOCIATED HEATING EVENTS IN THE TRANSITION REGION ABOVE SUNSPOTS. Astrophysical Journal Letters, 2014, 789, L42.	8.3	60
40	Coronal-Temperature-Diagnostic Capability ofÂtheÂHinode/X-Ray Telescope Based on Self-Consistent Calibration. Solar Physics, 2011, 269, 169-236.	2.5	59
41	JOINT HIGH TEMPERATURE OBSERVATION OF A SMALL C6.5 SOLAR FLARE WITH IRIS/EIS/AIA. Astrophysical Journal, 2015, 803, 84.	4.5	59
42	DEFINING THE â€œBLIND SPOTâ€•OF HINODE EIS AND XRT TEMPERATURE MEASUREMENTS. Astrophysical Journal Letters, 2012, 746, L17.	8.3	56
43	ON THE NATURE OF PROMINENCE EMISSION OBSERVED BYSDO/AIA. Astrophysical Journal, 2012, 754, 66.	4.5	55
44	The Magnetic Structure of a Coronal X-Ray Bright Point. Solar Physics, 2001, 201, 305-321.	2.5	54
45	Evolution of the Sheared Magnetic Fields of Two X-Class Flares Observed by Hinode/XRT. Publication of the Astronomical Society of Japan, 2007, 59, S785-S791.	2.5	54
46	DETECTING NANOFLARE HEATING EVENTS IN SUBARCSECOND INTER-MOSS LOOPS USING Hi-C. Astrophysical Journal, 2013, 771, 21.	4.5	54
47	FLARE ENERGY BUILD-UP IN A DECAYING ACTIVE REGION NEAR A CORONAL HOLE. Astrophysical Journal, 2009, 704, 341-353.	4.5	53
48	SOME LIKE IT HOT: CORONAL HEATING OBSERVATIONS FROMHINODEX-RAY TELESCOPE ANDRHESSI. Astrophysical Journal, 2009, 704, 863-869.	4.5	53
49	HIGH-RESOLUTION LABORATORY MEASUREMENTS OF CORONAL LINES IN THE 198-218 Ã... REGION. Astrophysical Journal, 2014, 788, 25.	4.5	48
50	Observation of spatial and temporal variations in X-ray bright point emergence patterns. Solar Physics, 1976, 50, 311-327.	2.5	46
51	SOLAR DYNAMICS OBSERVATORY DISCOVERS THIN HIGH TEMPERATURE STRANDS IN CORONAL ACTIVE REGIONS. Astrophysical Journal Letters, 2011, 736, L16.	8.3	46
52	The High-Resolution Coronal Imager, Flight 2.1. Solar Physics, 2019, 294, 1.	2.5	44
53	ANTI-PARALLEL EUV FLOWS OBSERVED ALONG ACTIVE REGION FILAMENT THREADS WITH HI-C. Astrophysical Journal Letters, 2013, 775, L32.	8.3	43
54	Is the High-Resolution Coronal Imager Resolving Coronal Strands? Results from AR 12712. Astrophysical Journal, 2020, 892, 134.	4.5	40

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55	Fine-scale Explosive Energy Release at Sites of Prospective Magnetic Flux Cancellation in the Core of the Solar Active Region Observed by Hi-C 2.1, IRIS, and SDO. Astrophysical Journal, 2019, 887, 56.	4.5	39
56	DYNAMICS OF THE TRANSITION CORONA. Astrophysical Journal, 2014, 787, 145.	4.5	33
57	Fine Thermal Structure of a Coronal Active Region. Science, 2007, 318, 1582-1585.	12.6	31
58	HIGH-RESOLUTION LABORATORY SPECTRA ON THE Î»131 CHANNEL OF THE AIA INSTRUMENT ON BOARD THE SOLAR DYNAMICS OBSERVATORY. Astrophysical Journal, Supplement Series, 2014, 211, 14.	7.7	31
59	INTERNETWORK CHROMOSPHERIC BRIGHT GRAINS OBSERVED WITH IRIS AND SST. Astrophysical Journal, 2015, 803, 44.	4.5	31
60	Hi-C 2.1 Observations of Jetlet-like Events at Edges of Solar Magnetic Network Lanes. Astrophysical Journal Letters, 2019, 887, L8.	8.3	30
61	HIGH-RESOLUTION LABORATORY SPECTRA OF THE Î»193 CHANNEL OF THE ATMOSPHERIC IMAGING ASSEMBLY INSTRUMENT ON BOARD SOLAR DYNAMICS OBSERVATORY. Astrophysical Journal, Supplement Series, 2014, 215, 6.	7.7	29
62	TRACE observations of the 15 November 1999 transit of Mercury and the Black Drop effect: considerations for the 2004 transit of Venus. Icarus, 2004, 168, 249-256.	2.5	28
63	Development and testing of EUV multilayer coatings for the atmospheric imaging assembly instrument aboard the Solar Dynamics Observatory. , 2005, , .		27
64	Imaging performance of multilayer xâ€ray mirrors. Applied Physics Letters, 1992, 61, 1481-1483.	3.3	26
65	Fabrication and testing of large area multilayer coated x-ray optics. Applied Optics, 1989, 28, 2969.	2.1	25
66	The Dynamical Morphologies of Flares Associated with the Two Types of Solar Coronal Mass Ejections. Astrophysical Journal, 2003, 595, 1251-1258.	4.5	25
67	FLARES AND THEIR UNDERLYING MAGNETIC COMPLEXITY. Astrophysical Journal, 2011, 726, 12.	4.5	25
68	Probing the Physics of the Solar Atmosphere with the Multi-slit Solar Explorer (MUSE). I. Coronal Heating. Astrophysical Journal, 2022, 926, 52.	4.5	25
69	Probing the Physics of the Solar Atmosphere with the Multi-slit Solar Explorer (MUSE). II. Flares and Eruptions. Astrophysical Journal, 2022, 926, 53.	4.5	24
70	X-ray tests of multilayer coated optics. Applied Optics, 1984, 23, 3529.	2.1	21
71	DISCOVERY OF FINELY STRUCTURED DYNAMIC SOLAR CORONA OBSERVED IN THE Hi-C TELESCOPE. Astrophysical Journal Letters, 2014, 787, L10.	8.3	21
72	The Drivers of Active Region Outflows into the Slow Solar Wind. Astrophysical Journal, 2020, 894, 144.	4.5	19

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73	Radon emanation from the moon, spatial and temporal variability. The Moon, 1974, 9, 129-140.	0.4	18
74	Long-lived Coronal Loop Profiles from TRACE. Solar Physics, 1999, 190, 131-138.	2.5	18
75	Normal incidence X-ray telescope power spectra of X-ray emission from solar active regions. I - Observations. II - Theory. Astrophysical Journal, 1993, 405, 767.	4.5	18
76	What Determines the Intensity of Solar Flare/CME Events?. Astrophysical Journal, 2007, 665, 1448-1459.	4.5	17
77	Quiescent Coronae of Active Chromosphere Stars. Astrophysics and Space Science Library, 1983, , 83-108.	2.7	17
78	STRUCTURE AND DYNAMICS OF QUIESCENT FILAMENT CHANNELS OBSERVED BYHINODE/XRT ANDSTEREO/EUVI. Astrophysical Journal, 2010, 721, 901-910.	4.5	15
79	The roots of coronal structure in the Sun's surface. Solar Physics, 1994, 153, 179-198.	2.5	14
80	Predicting the COSIE-C Signal from the Outer Corona up to 3 Solar Radii. Astrophysical Journal, 2018, 865, 132.	4.5	14
81	Unfolding Overlapped Slitless Imaging Spectrometer Data for Extended Sources. Astrophysical Journal, 2019, 882, 12.	4.5	14
82	Filters for soft x-ray solar telescopes. Optical Engineering, 1990, 29, 625.	1.0	13
83	High Resolution Soft X-ray Spectroscopy and the Quest for the Hot (5â€“10 MK) Plasma in Solar Active Regions. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	13
84	Active Region Transient Events Observed with [ITAL]TRACE[/ITAL]. Astrophysical Journal, 2001, 563, L173-L177.	4.5	13
85	Imaging Evidence for Solar Wind Outflows Originating from a Coronal Mass Ejection Footpoint. Astrophysical Journal, 2021, 906, 62.	4.5	12
86	Atomic force microscopy characterization of Zerodur mirror substrates for the extreme ultraviolet telescopes aboard NASA's Solar Dynamics Observatory. Applied Optics, 2007, 46, 3156.	2.1	11
87	Low-density laboratory spectra near the Heâ€‰iiÎ»304 line. Astronomy and Astrophysics, 2016, 586, A115.	5.1	11
88	Solar Active Region Heating Diagnostics from High-temperature Emission Using the MaGIXS. Astrophysical Journal, 2019, 884, 24.	4.5	11
89	EUV imaging and spectroscopy for improved space weather forecasting. Journal of Space Weather and Space Climate, 2020, 10, 37.	3.3	11
90	Solar Eclipse Observations from the Ground and Air from 0.31 to 5.5 Microns. Solar Physics, 2019, 294, 1.	2.5	10

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91	Observation and Modeling of High-temperature Solar Active Region Emission during the High-resolution Coronal Imager Flight of 2018 May 29. Astrophysical Journal, 2020, 896, 51.	4.5	10
92	The black-drop effect explained. Proceedings of the International Astronomical Union, 2004, 2004, 242-253.	0.0	9
93	Stigmatic grazing-incidence x-ray spectrograph for solar coronal observations. Proceedings of SPIE, 2010, , .	0.8	9
94	Signatures of the non-Maxwellian Îº-distributions in optically thin line spectra. Astronomy and Astrophysics, 2019, 626, A88.	5.1	9
95	XUV multilayered optics for astrophysics. Revue De Physique AppliquÃ©e, 1988, 23, 1741-1746.	0.4	9
96	Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. II. Theory. Astrophysical Journal, 1993, 405, 773.	4.5	9
97	The Marshall grazing incidence x-ray spectrometer (MaGIXS). , 2018, , .		9
98	Construction Of A Multilayered X-Ray Telescope For Solar Coronal Studies From Space. Proceedings of SPIE, 1985, , .	0.8	8
99	In-band and out-of-band reflectance calibrations of the EUV multilayer mirrors of the atmospheric imaging assembly instrument aboard the Solar Dynamics Observatory. Proceedings of SPIE, 2012, , .	0.8	8
100	Very High Resolution Solar X-ray Imaging. , 1991, , 115-123.		8
101	The interface region imaging spectrograph for the IRIS Small Explorer mission. Proceedings of SPIE, 2012, , .	0.8	7
102	On the alignment and focusing of the Marshall Grazing Incidence X-ray Spectrometer (MaGIXS). Proceedings of SPIE, 2016, , .	0.8	7
103	Empirical Scaling Laws for Coronal Heating. , 1983, , 345-361.		7
104	Design, performance prediction, and measurements of the interface region imaging spectrograph (IRIS) telescope. Proceedings of SPIE, 2012, , .	0.8	6
105	New Observations of the IR Emission Corona from the 2019 July 2 Eclipse Flight of the Airborne Infrared Spectrometer. Astrophysical Journal, 2022, 933, 82.	4.5	6
106	Filters For Soft X-Ray Solar Telescopes. Proceedings of SPIE, 1989, , .	0.8	5
107	<title>Results from the recent flights of the IBM/SAO x-ray telescopes</title>. , 1994, 2011, 391.		5
108	Parallel Plasma Loops and the Energization of the Solar Corona. Astrophysical Journal, 2022, 933, 153.	4.5	5

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109	Minimizing the mirror distortion for subarcsecond imaging in the Hi-C EUV telescope. Proceedings of SPIE, 2012, , .	0.8	4
110	Editorial: Data: Insights and Challenges in a Time of Abundance. Astrophysical Journal, Supplement Series, 2018, 236, 1.	7.7	4
111	Initial Calibration of the Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). , 2011, , 41-66.		4
112	The Airborne Infrared Spectrometer: Development, Characterization, and the 2017 August 21 Eclipse Observation. Astronomical Journal, 2022, 164, 39.	4.7	4
113	<title>High-resolution grazing incidence telescope for the Solar-B observatory</title>. , 2000, , .		3
114	Solar observation from space. Review of Scientific Instruments, 2003, 74, 4583-4600.	1.3	3
115	Physical Characteristics of Unstructured Coronal Clouds. Astrophysical Journal, 2021, 910, 113.	4.5	3
116	Marshall Grazing Incidence X-ray Spectrometer Slitjaw Imager Implementation and Performance. Solar Physics, 2021, 296, 1.	2.5	3
117	LUCI onboard Lagrange, the next generation of EUV space weather monitoring. Journal of Space Weather and Space Climate, 2020, 10, 49.	3.3	3
118	Quiescent Coronae of Active Chromosphere Stars. International Astronomical Union Colloquium, 1983, 71, 83-108.	0.1	2
119	Design Considerations For Soft X-Ray Television Imaging Detectors. , 1988, 0982, 64.		2
120	Normal incidence soft x-ray Î»=63.5 â„« telescope of 1991. , 1992, 1546, 168.		2
121	<title>Super-X: a soft x-ray telescope for Solar-B</title>. , 1998, , .		2
122	The Reconnection And Microscale (RAM) Solar-Terrestrial Probe. , 2003, , .		2
123	Space Studies of the Black-Drop Effect at a Mercury Transit. Highlights of Astronomy, 2005, 13, 70-72.	0.0	2
124	Coronal Fine Linear Rays: Are They Fast Streams From Active Regions?. , 2010, , .		2
125	Polar Coronal Plumes as Tornado-like Jets. Astrophysical Journal, 2018, 866, 35.	4.5	2
126	Alignment of the Marshall Grazing Incidence X-ray Spectrometer (MaGIXS) telescope mirror and spectrometer optics assemblies. , 2020, , .		2

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127	Calibration of the Marshall Grazing Incidence X-Ray Spectrometer Experiment. II. Flight Instrument Calibration. Astrophysical Journal, 2021, 922, 65.	4.5	2
128	<title>HIREX: results of the mission concept study</title>. , 1998, 3442, 22.		1
129	Focal plane CCD camera for the X-Ray Telescope (XRT) aboard SOLAR-B. , 2004, , .		1
130	The Marshall Grazing Incidence X-ray Spectrometer. , 2017, , .		1
131	A New Facility for Airborne Solar Astronomy: NASAâ€™s WB-57 at the 2017 Total Solar Eclipse. Astrophysical Journal, 2020, 895, 131.	4.5	1
132	The Once and Future Sun. , 0, , 29-55.		0
133	What We See: The Solar Disk. , 0, , 56-105.		0
134	What We Don't See. , 0, , 106-127.		0
135	Eclipses. , 0, , 128-168.		0
136	Space Missions. , 0, , 169-209.		0
137	Between Fire and Ice. , 0, , 210-246.		0
138	Space Weather. , 0, , 247-270.		0
139	Solar and late-type dwarfs. Advances in Space Research, 1983, 2, 215-224.	2.6	0
140	Solar coronal studies using normal-incidence X-ray optics. Advances in Space Research, 1984, 4, 75-82.	2.6	0
141	High Resolution Imaging Detector For Use With A Soft X-Ray Telescope. , 1986, , .		0
142	Comments On The Observability Of Coronal Variations. , 1988, , .		0
143	Normal incidence optics for solar coronal imaging. , 1995, , .		0
144	<title>Heliospheric Links Explorer (HELIX)</title>. , 1996, , .		0

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145	<title>Novel mirror mount design: TRACE primary mirror</title>. , 1998, , .		0
146	The Reconnection and Microscale (RAM) probe. , 2005, 5901, 281.		0
147	Total mass loading of prominences estimated from their multi-spectral observations. Proceedings of the International Astronomical Union, 2013, 8, 458-459.	0.0	0
148	Long-Lived Coronal Loop Profiles from TRACE. , 2000, , 131-138.		0
149	Solar Coronal Structure: Loops, Clouds, or Both?. Research Notes of the AAS, 2019, 3, 4.	0.7	0