Leon Golub

List of Publications by Year
in descending order

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149 papers	9,999 citations	50566 48 h-index	39744 98 g-index
162 all docs	162 docs citations	162 times ranked	3288 citing authors

#	Article	IF	Citations
1	Probing the Physics of the Solar Atmosphere with the Multi-slit Solar Explorer (MUSE). II. Flares and Eruptions. Astrophysical Journal, 2022, 926, 53.	1.6	24
2	Probing the Physics of the Solar Atmosphere with the Multi-slit Solar Explorer (MUSE). I. Coronal Heating. Astrophysical Journal, 2022, 926, 52.	1.6	25
3	New Observations of the IR Emission Corona from the 2019 July 2 Eclipse Flight of the Airborne Infrared Spectrometer. Astrophysical Journal, 2022, 933, 82.	1.6	6
4	Parallel Plasma Loops and the Energization of the Solar Corona. Astrophysical Journal, 2022, 933, 153.	1.6	5
5	The Airborne Infrared Spectrometer: Development, Characterization, and the 2017 August 21 Eclipse Observation. Astronomical Journal, 2022, 164, 39.	1.9	4
6	Physical Characteristics of Unstructured Coronal Clouds. Astrophysical Journal, 2021, 910, 113.	1.6	3
7	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, .	1.1	13
8	Marshall Grazing Incidence X-ray Spectrometer Slitjaw Imager Implementation and Performance. Solar Physics, 2021, 296, 1.	1.0	3
9	Imaging Evidence for Solar Wind Outflows Originating from a Coronal Mass Ejection Footpoint. Astrophysical Journal, 2021, 906, 62.	1.6	12
10	Calibration of the Marshall Grazing Incidence X-Ray Spectrometer Experiment. II. Flight Instrument Calibration. Astrophysical Journal, 2021, 922, 65.	1.6	2
11	EUV imaging and spectroscopy for improved space weather forecasting. Journal of Space Weather and Space Climate, 2020, 10, 37.	1.1	11
12	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.	1.6	10
13	Is the High-Resolution Coronal Imager Resolving Coronal Strands? Results from AR 12712. Astrophysical Journal, 2020, 892, 134.	1.6	40
14	LUCI onboard Lagrange, the next generation of EUV space weather monitoring. Journal of Space Weather and Space Climate, 2020, 10, 49.	1.1	3
15	The Drivers of Active Region Outflows into the Slow Solar Wind. Astrophysical Journal, 2020, 894, 144.	1.6	19
16	A New Facility for Airborne Solar Astronomy: NASAâ€™s WB-57 at the 2017 Total Solar Eclipse. Astrophysical Journal, 2020, 895, 131.	1.6	1
17	Alignment of the Marshall Grazing Incidence X-ray Spectrometer (MaGIXS) telescope mirror and spectrometer optics assemblies. , 2020, , .		2
18	Signatures of the non-Maxwellian Îº-distributions in optically thin line spectra. Astronomy and Astrophysics, 2019, 626, A88.	2.1	9

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19	Unfolding Overlapped Slitless Imaging Spectrometer Data for Extended Sources. Astrophysical Journal, 2019, 882, 12.	1.6	14
20	Solar Eclipse Observations from the Ground and Air from 0.31 to 5.5 Microns. Solar Physics, 2019, 294, 1.	1.0	10
21	Hi-C 2.1 Observations of Jetlet-like Events at Edges of Solar Magnetic Network Lanes. Astrophysical Journal Letters, 2019, 887, L8.	3.0	30
22	Solar Active Region Heating Diagnostics from High-temperature Emission Using the MaGIXS. Astrophysical Journal, 2019, 884, 24.	1.6	11
23	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.	1.6	39
24	AlfvÃ©nic velocity spikes and rotational flows in the near-Sun solar wind. Nature, 2019, 576, 228-231.	13.7	311
25	The High-Resolution Coronal Imager, Flight 2.1. Solar Physics, 2019, 294, 1.	1.0	44
26	Solar Coronal Structure: Loops, Clouds, or Both?. Research Notes of the AAS, 2019, 3, 4.	0.3	0
27	Polar Coronal Plumes as Tornado-like Jets. Astrophysical Journal, 2018, 866, 35.	1.6	2
28	Predicting the COSIE-C Signal from the Outer Corona up to 3 Solar Radii. Astrophysical Journal, 2018, 865, 132.	1.6	14
29	Editorial: Data: Insights and Challenges in a Time of Abundance. Astrophysical Journal, Supplement Series, 2018, 236, 1.	3.0	4
30	The Marshall grazing incidence x-ray spectrometer (MaGIXS). , 2018, , .		9
31	The Marshall Grazing Incidence X-ray Spectrometer. , 2017, , .		1
32	Low-density laboratory spectra near the Heâ€‰ii‹i›Î»‹/i›304 line. Astronomy and Astrophysics, 2016, 586, A115.	2.1	11
33	On the alignment and focusing of the Marshall Grazing Incidence X-ray Spectrometer (MaGIXS). Proceedings of SPIE, 2016, , .	0.8	7
34	SIMULTANEOUS IRIS AND HINODE/EIS OBSERVATIONS AND MODELING OF THE 2014 OCTOBER 27 X2.0ÂCLASS FLARE. Astrophysical Journal, 2016, 816, 89.	1.6	70
35	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.	3.7	439
36	INTERNETWORK CHROMOSPHERIC BRIGHT GRAINS OBSERVED WITH IRIS AND SST. Astrophysical Journal, 2015, 803, 44.	1.6	31

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37	HOMOLOGOUS HELICAL JETS: OBSERVATIONS BYIRIS,SDO, ANDHINODEAND MAGNETIC MODELING WITH DATA-DRIVEN SIMULATIONS. Astrophysical Journal, 2015, 801, 83.	1.6	89
38	JOINT HIGH TEMPERATURE OBSERVATION OF A SMALL C6.5 SOLAR FLARE WITH IRIS/EIS/AIA. Astrophysical Journal, 2015, 803, 84.	1.6	59
39	DYNAMICS OF THE TRANSITION CORONA. Astrophysical Journal, 2014, 787, 145.	1.6	33
40	HIGH-RESOLUTION OBSERVATIONS OF THE SHOCK WAVE BEHAVIOR FOR SUNSPOT OSCILLATIONS WITH THE INTERFACE REGION IMAGING SPECTROGRAPH. Astrophysical Journal, 2014, 786, 137.	1.6	102
41	OBSERVATIONS OF SUBARCSECOND BRIGHT DOTS IN THE TRANSITION REGION ABOVE SUNSPOTS WITH THE INTERFACE REGION IMAGING SPECTROGRAPH. Astrophysical Journal Letters, 2014, 790, L29.	3.0	63
42	DETECTION OF SUPERSONIC DOWNFLOWS AND ASSOCIATED HEATING EVENTS IN THE TRANSITION REGION ABOVE SUNSPOTS. Astrophysical Journal Letters, 2014, 789, L42.	3.0	60
43	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.	3.0	31
44	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.	3.0	29
45	Prevalence of small-scale jets from the networks of the solar transition region and chromosphere. Science, 2014, 346, 1255711.	6.0	232
46	Evidence of nonthermal particles in coronal loops heated impulsively by nanoflares. Science, 2014, 346, 1255724.	6.0	148
47	Hot explosions in the cool atmosphere of the Sun. Science, 2014, 346, 1255726.	6.0	234
48	On the prevalence of small-scale twist in the solar chromosphere and transition region. Science, 2014, 346, 1255732.	6.0	111
49	The unresolved fine structure resolved: IRIS observations of the solar transition region. Science, 2014, 346, 1255757.	6.0	87
50	DISCOVERY OF FINELY STRUCTURED DYNAMIC SOLAR CORONA OBSERVED IN THE Hi-C TELESCOPE. Astrophysical Journal Letters, 2014, 787, L10.	3.0	21
51	HIGH-RESOLUTION LABORATORY MEASUREMENTS OF CORONAL LINES IN THE 198-218 Ã... REGION. Astrophysical Journal, 2014, 788, 25.	1.6	48
52	The High-Resolution Coronal Imager (Hi-C). Solar Physics, 2014, 289, 4393-4412.	1.0	104
53	AN INTERFACE REGION IMAGING SPECTROGRAPH FIRST VIEW ON SOLAR SPICULES. Astrophysical Journal Letters, 2014, 792, L15.	3.0	115
54	ANTI-PARALLEL EUV FLOWS OBSERVED ALONG ACTIVE REGION FILAMENT THREADS WITH HI-C. Astrophysical Journal Letters, 2013, 775, L32.	3.0	43

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55	DETECTING NANOFLARE HEATING EVENTS IN SUBARCSECOND INTER-MOSS LOOPS USING Hi-C. Astrophysical Journal, 2013, 771, 21.	1.6	54
56	Total mass loading of prominences estimated from their multi-spectral observations. Proceedings of the International Astronomical Union, 2013, 8, 458-459.	0.0	0
57	OBSERVING CORONAL NANOFLARES IN ACTIVE REGION MOSS. Astrophysical Journal Letters, 2013, 770, L1.	3.0	99
58	Minimizing the mirror distortion for subarcsecond imaging in the Hi-C EUV telescope. Proceedings of SPIE, 2012, , .	0.8	4
59	DEFINING THE â€œBLIND SPOTâ€•OF HINODE EIS AND XRT TEMPERATURE MEASUREMENTS. Astrophysical Journal Letters, 2012, 746, L17.	3.0	56
60	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
61	Design, performance prediction, and measurements of the interface region imaging spectrograph (IRIS) telescope. Proceedings of SPIE, 2012, , .	0.8	6
62	The interface region imaging spectrograph for the IRIS Small Explorer mission. Proceedings of SPIE, 2012, , .	0.8	7
63	ON THE NATURE OF PROMINENCE EMISSION OBSERVED BYSDO/AIA. Astrophysical Journal, 2012, 754, 66.	1.6	55
64	The Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 17-40.	1.0	3,385
65	Initial Calibration of the Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 41-66.	1.0	352
66	SOLAR DYNAMICS OBSERVATORY DISCOVERS THIN HIGH TEMPERATURE STRANDS IN CORONAL ACTIVE REGIONS. Astrophysical Journal Letters, 2011, 736, L16.	3.0	46
67	OBSERVATIONS AND MAGNETIC FIELD MODELING OF THE FLARE/CORONAL MASS EJECTION EVENT ON 2010 APRIL 8. Astrophysical Journal, 2011, 734, 53.	1.6	113
68	OBSERVATIONS AND INTERPRETATION OF A LOW CORONAL SHOCK WAVE OBSERVED IN THE EUV BY THE SDO/AIA. Astrophysical Journal, 2011, 738, 160.	1.6	137
69	FLARES AND THEIR UNDERLYING MAGNETIC COMPLEXITY. Astrophysical Journal, 2011, 726, 12.	1.6	25
70	ATMOSPHERIC IMAGING ASSEMBLY OBSERVATIONS OF HOT FLARE PLASMA. Astrophysical Journal Letters, 2011, 727, L52.	3.0	96
71	Coronal-Temperature-Diagnostic Capability ofÂtheÂHinode/X-Ray Telescope Based on Self-Consistent Calibration. Solar Physics, 2011, 269, 169-236.	1.0	59
72	Initial Calibration of the Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). , 2011, , 41-66.		4

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73	Stigmatic grazing-incidence x-ray spectrograph for solar coronal observations. Proceedings of SPIE, 2010, , .	0.8	9
74	STRUCTURE AND DYNAMICS OF QUIESCENT FILAMENT CHANNELS OBSERVED BYHINODE/XRT ANDSTEREO/EUVI. Astrophysical Journal, 2010, 721, 901-910.	1.6	15
75	Coronal Fine Linear Rays: Are They Fast Streams From Active Regions?. , 2010, , .		2
76	STATISTICAL STUDY OF CORONAL MASS EJECTIONS WITH AND WITHOUT DISTINCT LOW CORONAL SIGNATURES. Astrophysical Journal, 2010, 722, 289-301.	1.6	82
77	OBSERVATIONS AND NONLINEAR FORCE-FREE FIELD MODELING OF ACTIVE REGION 10953. Astrophysical Journal, 2009, 691, 105-114.	1.6	73
78	FANâ€“SPINE TOPOLOGY FORMATION THROUGH TWO-STEP RECONNECTION DRIVEN BY TWISTED FLUX EMERGENCE. Astrophysical Journal, 2009, 704, 485-495.	1.6	125
79	FLARE ENERGY BUILD-UP IN A DECAYING ACTIVE REGION NEAR A CORONAL HOLE. Astrophysical Journal, 2009, 704, 341-353.	1.6	53
80	ON THE STRUCTURE AND EVOLUTION OF COMPLEXITY IN SIGMOIDS: A FLUX EMERGENCE MODEL. Astrophysical Journal, 2009, 691, 1276-1291.	1.6	70
81	X-Ray Jet Dynamics in a Polar Coronal Hole Region. Solar Physics, 2009, 254, 259-269.	1.0	61
82	SOME LIKE IT HOT: CORONAL HEATING OBSERVATIONS FROMHINODEX-RAY TELESCOPE ANDRHESSI. Astrophysical Journal, 2009, 704, 863-869.	1.6	53
83	The Hinode X-Ray Telescope (XRT): Camera Design, Performance and Operations. Solar Physics, 2008, 249, 263-279.	1.0	84
84	Hinode,TRACE,SOHO, and Groundâ€based Observations of a Quiescent Prominence. Astrophysical Journal, 2008, 686, 1383-1396.	1.6	95
85	Fine Thermal Structure of a Coronal Active Region. Science, 2007, 318, 1582-1585.	6.0	31
86	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.	1.0	54
87	Slipping Magnetic Reconnection in Coronal Loops. Science, 2007, 318, 1588-1591.	6.0	98
88	A Study of Polar Jet Parameters Based on Hinode XRT Observations. Publication of the Astronomical Society of Japan, 2007, 59, S771-S778.	1.0	159
89	A Statistical Study of Shear Motion of the Footpoints in Twoâ€Ribbon Flares. Astrophysical Journal, 2007, 655, 606-614.	1.6	63
90	What Determines the Intensity of Solar Flare/CME Events?. Astrophysical Journal, 2007, 665, 1448-1459.	1.6	17

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91	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
92	Continuous Plasma Outflows from the Edge of a Solar Active Region as a Possible Source of Solar Wind. Science, 2007, 318, 1585-1588.	6.0	189
93	The Reconnection and Microscale (RAM) probe. , 2005, 5901, 281.		0
94	Space Studies of the Black-Drop Effect at a Mercury Transit. Highlights of Astronomy, 2005, 13, 70-72.	0.0	2
95	Development and testing of EUV multilayer coatings for the atmospheric imaging assembly instrument aboard the Solar Dynamics Observatory. , 2005, , .		27
96	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.	1.1	28
97	Focal plane CCD camera for the X-Ray Telescope (XRT) aboard SOLAR-B. , 2004, , .		1
98	The black-drop effect explained. Proceedings of the International Astronomical Union, 2004, 2004, 242-253.	0.0	9
99	Solar observation from space. Review of Scientific Instruments, 2003, 74, 4583-4600.	0.6	3
100	The Reconnection And Microscale (RAM) Solar-Terrestrial Probe. , 2003, , .		2
101	The Dynamical Morphologies of Flares Associated with the Two Types of Solar Coronal Mass Ejections. Astrophysical Journal, 2003, 595, 1251-1258.	1.6	25
102	Steady Flows Detected in Extreme-Ultraviolet Loops. Astrophysical Journal, 2002, 567, L89-L92.	1.6	125
103	Apparent Flows above an Active Region Observed with the [ITAL]Transition Region and Coronal Explorer[/ITAL]. Astrophysical Journal, 2001, 553, L81-L84.	1.6	62
104	The Magnetic Structure of a Coronal X-Ray Bright Point. Solar Physics, 2001, 201, 305-321.	1.0	54
105	Active Region Transient Events Observed with [ITAL]TRACE[/ITAL]. Astrophysical Journal, 2001, 563, L173-L177.	1.6	13
106	<title>High-resolution grazing incidence telescope for the Solar-B observatory</title>. , 2000, , .		3
107	Long-Lived Coronal Loop Profiles from TRACE. , 2000, , 131-138.		0
108	Long-lived Coronal Loop Profiles from TRACE. Solar Physics, 1999, 190, 131-138.	1.0	18

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109	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.	1.6	157
110	<title>HIREX: results of the mission concept study</title>. , 1998, 3442, 22.		1
111	<title>Super-X: a soft x-ray telescope for Solar-B</title>. , 1998, , .		2
112	<title>Novel mirror mount design: TRACE primary mirror</title>. , 1998, , .		0
113	Dynamic Responses to Magnetic Reconnection in Solar Arcades. Astrophysical Journal, 1998, 495, 491-501.	1.6	80
114	<title>Heliospheric Links Explorer (HELIX)</title>. , 1996, , .		0
115	Normal incidence optics for solar coronal imaging. , 1995, , .		0
116	The three-dimensional structures of X-ray bright points. Solar Physics, 1994, 151, 57-74.	1.0	96
117	The roots of coronal structure in the Sun's surface. Solar Physics, 1994, 153, 179-198.	1.0	14
118	<title>Results from the recent flights of the IBM/SAO x-ray telescopes</title>. , 1994, 2011, 391.		5
119	Normal incidence X-ray telescope power spectra of X-ray emission from solar active regions. I - Observations. II - Theory. Astrophysical Journal, 1993, 405, 767.	1.6	18
120	Normal Incidence X-Ray Telescope Power Spectra of X-Ray Emission from Solar Active Regions. II. Theory. Astrophysical Journal, 1993, 405, 773.	1.6	9
121	Imaging performance of multilayer xâ€ray mirrors. Applied Physics Letters, 1992, 61, 1481-1483.	1.5	26
122	Normal incidence soft x-ray Î»=63.5 â„« telescope of 1991. , 1992, 1546, 168.		2
123	Very High Resolution Solar X-ray Imaging. , 1991, , 115-123.		8
124	Filters for soft x-ray solar telescopes. Optical Engineering, 1990, 29, 625.	0.5	13
125	Filters For Soft X-Ray Solar Telescopes. Proceedings of SPIE, 1989, , .	0.8	5
126	Fabrication and testing of large area multilayer coated x-ray optics. Applied Optics, 1989, 28, 2969.	2.1	25

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127	Design Considerations For Soft X-Ray Television Imaging Detectors. , 1988, 0982, 64.		2
128	Comments On The Observability Of Coronal Variations. , 1988, , .		0
129	XUV multilayered optics for astrophysics. Revue De Physique AppliquÃ©e, 1988, 23, 1741-1746.	0.4	9
130	High Resolution Imaging Detector For Use With A Soft X-Ray Telescope. , 1986, , .		0
131	Construction Of A Multilayered X-Ray Telescope For Solar Coronal Studies From Space. Proceedings of SPIE, 1985, , .	0.8	8
132	Solar coronal studies using normal-incidence X-ray optics. Advances in Space Research, 1984, 4, 75-82.	1.2	0
133	X-ray tests of multilayer coated optics. Applied Optics, 1984, 23, 3529.	2.1	21
134	Solar and late-type dwarfs. Advances in Space Research, 1983, 2, 215-224.	1.2	0
135	Quiescent Coronae of Active Chromosphere Stars. International Astronomical Union Colloquium, 1983, 71, 83-108.	0.1	2
136	Quiescent Coronae of Active Chromosphere Stars. Astrophysics and Space Science Library, 1983, , 83-108.	1.0	17
137	Empirical Scaling Laws for Coronal Heating. , 1983, , 345-361.		7
138	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.	1.0	91
139	Magnetic properties of x-ray bright points. Solar Physics, 1977, 53, 111-121.	1.0	135
140	Observation of spatial and temporal variations in X-ray bright point emergence patterns. Solar Physics, 1976, 50, 311-327.	1.0	46
141	Distribution of lifetimes for coronal soft X-ray bright points. Solar Physics, 1976, 49, 79.	1.0	61
142	Radon emanation from the moon, spatial and temporal variability. The Moon, 1974, 9, 129-140.	0.4	18
143	The Once and Future Sun. , 0, , 29-55.		0
144	What We See: The Solar Disk. , 0, , 56-105.		0

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145	What We Don't See. , 0, , 106-127.		0
146	Eclipses. , 0, , 128-168.		0
147	Space Missions. , 0, , 169-209.		0
148	Between Fire and Ice. , 0, , 210-246.		0
149	Space Weather. , 0, , 247-270.		0