

Gary Ferland

List of Publications by Year in descending order

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112
papers

8,337
citations

50276

46
h-index

43889

91
g-index

114
all docs

114
docs citations

114
times ranked

4756
citing authors

#	ARTICLE	IF	CITATIONS
1	CLOUDY 90: Numerical Simulation of Plasmas and Their Spectra. Publications of the Astronomical Society of the Pacific, 1998, 110, 761-778.	3.1	1,979
2	Elemental Abundances in Quasistellar Objects: Star Formation and Galactic Nuclear Evolution at High Redshifts. Annual Review of Astronomy and Astrophysics, 1999, 37, 487-531.	24.3	331
3	The Chemical Evolution of QSOs and the Implications for Cosmology and Galaxy Formation. Astrophysical Journal, 1993, 418, 11.	4.5	293
4	Atomic Data for Permitted Resonance Lines of Atoms and Ions from H to Si, and S, Ar, Ca, and Fe. Atomic Data and Nuclear Data Tables, 1996, 64, 1-180.	2.4	291
5	Physical conditions in the Orion Nebula and an assessment of its helium abundance. Astrophysical Journal, 1991, 374, 580.	4.5	282
6	Locally Optimally Emitting Clouds and the Origin of Quasar Emission Lines. Astrophysical Journal, 1995, 455, .	4.5	261
7	Anisotropic line emission and the geometry of the broad-line region in active galactic nuclei. Astrophysical Journal, 1992, 387, 95.	4.5	200
8	An Atlas of Computed Equivalent Widths of Quasar Broad Emission Lines. Astrophysical Journal, Supplement Series, 1997, 108, 401-415.	7.7	187
9	Hubble Space Telescope Sample of Radio-loud Quasars: Ultraviolet Spectra of the First 31 Quasars. Astrophysical Journal, 1995, 447, 139.	4.5	169
10	The VLT-LVES survey for molecular hydrogen in high-redshift damped Lyman $\hat{\pm}$ systems: physical conditions in the neutral gas. Monthly Notices of the Royal Astronomical Society, 2005, 362, 549-568.	4.4	153
11	Quantitative Spectroscopy of Photoionized Clouds. Annual Review of Astronomy and Astrophysics, 2003, 41, 517-554.	24.3	150
12	Metallicities and Abundance Ratios from Quasar Broad Emission Lines. Astrophysical Journal, 2002, 564, 592-603.	4.5	146
13	Rate Coefficients for Charge Transfer between Hydrogen and the First 30 Elements. Astrophysical Journal, Supplement Series, 1996, 106, 205.	7.7	143
14	Collisional heating as the origin of filament emission in galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2009, 392, 1475-1502.	4.4	138
15	Numerical Simulations of Fe ii Emission Spectra. Astrophysical Journal, Supplement Series, 1999, 120, 101-112.	7.7	124
16	The Origin of FeiiEmission in Active Galactic Nuclei. Astrophysical Journal, 2004, 615, 610-624.	4.5	119
17	Molecular Hydrogen in Star-forming Regions: Implementation of its Microphysics in CLOUDY. Astrophysical Journal, 2005, 624, 794-807.	4.5	111
18	The age and chemical evolution of high-redshift QSOs. Astrophysical Journal, 1992, 391, L53.	4.5	109

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19	The H II Region/PDR Connection: Self-consistent Calculations of Physical Conditions in Star-forming Regions. <i>Astrophysical Journal, Supplement Series</i> , 2005, 161, 65-95.	7.7	108
20	STRUCTURE AND FEEDBACK IN 30 DORADUS. II. STRUCTURE AND CHEMICAL ABUNDANCES. <i>Astrophysical Journal</i> , 2011, 738, 34.	4.5	99
21	Swift Monitoring of NGC 4151: Evidence for a Second X-Ray/UV Reprocessing. <i>Astrophysical Journal</i> , 2017, 840, 41.	4.5	98
22	The energy source of the filaments around the giant galaxy NGC 1275. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 417, 172-177.	4.4	96
23	A Magnetically Supported Photodissociation Region in M17. <i>Astrophysical Journal</i> , 2007, 658, 1119-1135.	4.5	95
24	Space Telescope and Optical Reverberation Mapping Project. V. Optical Spectroscopic Campaign and Emission-line Analysis for NGC 5548. <i>Astrophysical Journal</i> , 2017, 837, 131.	4.5	93
25	Grain size distributions and photoelectric heating in ionized media. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 350, 1330-1341.	4.4	91
26	Electron-impact excitation of He II fine-structure levels. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 397, 903-912.	4.4	87
27	The PG X-Ray QSO Sample: Links between the Ultraviolet X-Ray Continuum and Emission Lines. <i>Astrophysical Journal</i> , 1999, 515, L53-L56.	4.5	86
28	HIGH-EXCITATION EMISSION LINES NEAR ETA CARINAE, AND ITS LIKELY COMPANION STAR. <i>Astrophysical Journal</i> , 2010, 710, 729-742.	4.5	81
29	ION-BY-ION COOLING EFFICIENCIES. <i>Astrophysical Journal, Supplement Series</i> , 2012, 199, 20.	7.7	81
30	Optically thin broad-line clouds in active galactic nuclei. <i>Astrophysical Journal</i> , 1995, 441, 507.	4.5	74
31	Very High Density Clumps and Outflowing Winds in QSO Broad-Line Regions. <i>Astrophysical Journal</i> , 1996, 461, 664.	4.5	72
32	Quasars as Cosmological Probes: The Ionizing Continuum, Gas Metallicity, and the \dot{M}_{BH} Relation. <i>Astrophysical Journal</i> , 1998, 507, 24-30.	4.5	71
33	IMPLICATIONS OF INFALLING Fe II-EMITTING CLOUDS IN ACTIVE GALACTIC NUCLEI: ANISOTROPIC PROPERTIES. <i>Astrophysical Journal</i> , 2009, 707, L82-L86.	4.5	71
34	ORION'S BAR: PHYSICAL CONDITIONS ACROSS THE DEFINITIVE $H^+ / H^0 / H_2$ INTERFACE. <i>Astrophysical Journal</i> , 2009, 693, 285-302.	4.5	71
35	Discovery of atomic and molecular mid-infrared emission lines in off-nuclear regions of NGC 1275 and NGC 4696 with the Spitzer Space Telescope. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, 382, 1246-1260.	4.4	68
36	Physical Conditions of the Coronal Line Region in Seyfert Galaxies. <i>Astrophysical Journal, Supplement Series</i> , 1997, 110, 287-297.	7.7	68

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37	Theoretical He I Emissivities in the Case B Approximation. <i>Astrophysical Journal</i> , 2005, 622, L73-L75.	4.5	66
38	Accurate determination of the free-free Gaunt factor. I. Non-relativistic Gaunt factors. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 444, 420-428.	4.4	65
39	Do the Broad Emission Line Clouds See the Same Continuum That We See?. <i>Astrophysical Journal</i> , 1997, 487, 555-559.	4.5	64
40	SPACE TELESCOPE AND OPTICAL REVERBERATION MAPPING PROJECT. IV. ANOMALOUS BEHAVIOR OF THE BROAD ULTRAVIOLET EMISSION LINES IN NGC 5548. <i>Astrophysical Journal</i> , 2016, 824, 11.	4.5	63
41	The Hubble Space Telescope Sample of Radio-loud Quasars: The LY alpha /H beta Ratio. <i>Astrophysical Journal</i> , 1995, 448, 27.	4.5	59
42	He I Emission in the Orion Nebula and Implications for Primordial Helium Abundance. <i>Astrophysical Journal</i> , 2007, 657, 327-337.	4.5	58
43	EVIDENCE FOR PHOTOIONIZATION-DRIVEN BROAD ABSORPTION LINE VARIABILITY. <i>Astrophysical Journal</i> , 2015, 814, 150.	4.5	53
44	The physical conditions within dense cold clouds in cooling flows. <i>Monthly Notices of the Royal Astronomical Society</i> , 1994, 266, 399-411.	4.4	52
45	Physical Conditions in the Orion H II Region. <i>Publications of the Astronomical Society of the Pacific</i> , 2001, 113, 41-48.	3.1	52
46	Chemical Abundances in Broad Emission Line Regions: The α -Nitrogen Cloud Quasi-Stellar Object Q0353 ⁺ 383. <i>Astrophysical Journal</i> , 2003, 583, 649-658.	4.5	52
47	A multiwavelength study of Nova QU Vulpeculae 1984. <i>Astrophysical Journal</i> , 1992, 398, 651.	4.5	50
48	The Mass of Quasar Broad Emission Line Regions. <i>Astrophysical Journal</i> , 2003, 582, 590-595.	4.5	46
49	LONG-TERM SPECTRAL EVOLUTION OF TIDAL DISRUPTION CANDIDATES SELECTED BY STRONG CORONAL LINES. <i>Astrophysical Journal</i> , 2013, 774, 46.	4.5	45
50	The narrow-line region of high-luminosity active galactic nuclei. <i>Astrophysical Journal</i> , 1993, 410, 534.	4.5	45
51	Physical Conditions in Orion's Veil. <i>Astrophysical Journal</i> , 2004, 609, 247-260.	4.5	44
52	The Effects of Low-Temperature Dielectronic Recombination on the Relative Populations of the Fe M-shell States. <i>Astrophysical Journal</i> , 2004, 604, 556-561.	4.5	43
53	Properties of warm absorbers in active galaxies: a systematic stability curve analysis. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 393, 83-98.	4.4	42
54	Temperature Fluctuations in Photoionized Nebulae. <i>Astrophysical Journal</i> , 1995, 450, 691.	4.5	42

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55	ATOMIC DATA AND SPECTRAL MODEL FOR Fe II. <i>Astrophysical Journal</i> , 2015, 808, 174.	4.5	36
56	Space Telescope and Optical Reverberation Mapping Project. X. Understanding the Absorption-line Holiday in NGC 5548. <i>Astrophysical Journal</i> , 2019, 877, 119.	4.5	35
57	Space Telescope and Optical Reverberation Mapping Project. VIII. Time Variability of Emission and Absorption in NGC 5548 Based on Modeling the Ultraviolet Spectrum. <i>Astrophysical Journal</i> , 2019, 881, 153.	4.5	34
58	Observational Constraints on the Internal Velocity Field of Quasar Emission-line Clouds. <i>Astrophysical Journal</i> , 2000, 542, 644-654.	4.5	33
59	A Wind-based Unification Model for NGC 5548: Spectral Holidays, Nondisk Emission, and Implications for Changing-look Quasars. <i>Astrophysical Journal Letters</i> , 2019, 882, L30.	8.3	33
60	Which Stars Are Ionizing the Orion Nebula?. <i>Astrophysical Journal</i> , 2017, 837, 151.	4.5	32
61	THE INTERMEDIATE-LINE REGION IN ACTIVE GALACTIC NUCLEI. <i>Astrophysical Journal</i> , 2016, 831, 68.	4.5	31
62	Atomic Data Revisions for Transitions Relevant to Observations of Interstellar, Circumgalactic, and Intergalactic Matter. <i>Astrophysical Journal, Supplement Series</i> , 2017, 230, 8.	7.7	29
63	The Chemical Enrichment of Gas in Broad Absorption Line QSOs: Rapid Star Formation in the Early History of Galaxies. <i>Astrophysical Journal</i> , 1996, 461, 641.	4.5	29
64	STOUT: CLOUDY'S ATOMIC AND MOLECULAR DATABASE. <i>Astrophysical Journal</i> , 2015, 807, 118.	4.5	28
65	The influence of soft spectral components on the structure and stability of warm absorbers in active galactic nuclei. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 422, 637-651.	4.4	24
66	The Carbon and Nitrogen Abundance Ratio in the Broad Line Region of Tidal Disruption Events. <i>Astrophysical Journal</i> , 2017, 846, 150.	4.5	23
67	Improved Fe II Emission-line Models for AGNs Using New Atomic Data Sets. <i>Astrophysical Journal</i> , 2021, 907, 12.	4.5	21
68	Evidence of a Tidal-disruption Event in GSN 069 from the Abnormal Carbon and Nitrogen Abundance Ratio. <i>Astrophysical Journal Letters</i> , 2021, 920, L25.	8.3	21
69	Spectroscopic Challenges of Photoionized Plasmas. <i>Publications of the Astronomical Society of the Pacific</i> , 2001, 113, 1024-1024.	3.1	20
70	Fractal Quasar Clouds. <i>Astrophysical Journal</i> , 2001, 549, 118-132.	4.5	20
71	Dielectronic recombination and stability of warm gas in active galactic nuclei. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2008, 384, L24-L28.	3.3	20
72	The Structure of the Orion Nebula in the Direction of $\hat{l}_{¹}$ Ori C. <i>Astrophysical Journal</i> , 2019, 881, 130.	4.5	18

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73	Intermediate-line Emission in AGNs: The Effect of Prescription of the Gas Density. <i>Astrophysical Journal</i> , 2018, 856, 78.	4.5	17
74	The Ultraviolet-Optical Albedo of Broad Emission Line Clouds. <i>Astrophysical Journal</i> , 1998, 495, 672-679.	4.5	16
75	Suppression of Dielectronic Recombination Due to Finite Density Effects. II. Analytical Refinement and Application to Density-dependent Ionization Balances and AGN Broad-line Emission. <i>Astrophysical Journal</i> , Supplement Series, 2018, 237, 41.	7.7	15
76	Emission Line Ratios of Fe III as Astrophysical Plasma Diagnostics. <i>Astrophysical Journal</i> , 2017, 841, 3.	4.5	13
77	Space Telescope and Optical Reverberation Mapping Project. XI. Disk-wind Characteristics and Contributions to the Very Broad Emission Lines of NGC 5548. <i>Astrophysical Journal</i> , 2020, 898, 141.	4.5	13
78	Dissipative Heating and Quasar Emission Lines. <i>Astrophysical Journal</i> , 2002, 568, 581-591.	4.5	11
79	X-Ray Spectroscopy in the Microcalorimeter Era. I. Effects of Fe xxiv Resonant Auger Destruction on Fe xxv K \pm Spectra. <i>Astrophysical Journal</i> , 2020, 901, 68.	4.5	11
80	A transition mass for black holes to show broad emission lines. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 437, 740-747.	4.4	10
81	X-Ray Spectroscopy in the Microcalorimeter Era. III. Line Formation under Case A, Case B, Case C, and Case D in H- and He-like Iron for a Photoionized Cloud. <i>Astrophysical Journal</i> , 2021, 912, 26.	4.5	10
82	Cosmic Ray Dissociation of Molecular Hydrogen and Dense Cloud Chemistry. <i>Research Notes of the AAS</i> , 2020, 4, 78.	0.7	10
83	X-Ray Spectroscopy in the Microcalorimeter Era. II. A New Diagnostic on Column Density from the Case A to B Transition in H- and He-like Iron. <i>Astrophysical Journal</i> , 2020, 901, 69.	4.5	9
84	EVIDENCE FOR FLUORESCENT Fe ii EMISSION FROM EXTENDED LOW IONIZATION OUTFLOWS IN OBSCURED QUASARS. <i>Astrophysical Journal</i> , 2016, 824, 106.	4.5	8
85	The Validity of 21 cm Spin Temperature as a Kinetic Temperature Indicator in Atomic and Molecular Gas. <i>Astrophysical Journal</i> , 2017, 843, 149.	4.5	8
86	HERSCHEL DUST EMISSION AS A PROBE OF STARLESS CORES MASS: MCLD 123.5+24.9 OF THE POLARIS FLARE. <i>Astrophysical Journal</i> , 2015, 809, 17.	4.5	7
87	ULTRAVIOLET EMISSION LINES OF Si ii IN QUASARS—INVESTIGATING THE Si ii DISASTER. <i>Astrophysical Journal</i> , 2016, 825, 28.	4.5	7
88	Newly Improved Ionization Corrections for the Neutral Interstellar Medium: Enabling Accurate Abundance Determinations in Star-forming Galaxies throughout the Universe [*] . <i>Astrophysical Journal</i> , 2020, 892, 19.	4.5	7
89	Role of Polycyclic Aromatic Hydrocarbons on the Cosmic-Ray Ionization Rate in the Galaxy. <i>Astrophysical Journal</i> , 2021, 908, 138.	4.5	5
90	Space Telescope and Optical Reverberation Mapping Project. XIII. An Atlas of UV and X-Ray Spectroscopic Signatures of the Disk Wind in NGC 5548. <i>Astrophysical Journal</i> , 2021, 906, 14.	4.5	5

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91	The Paschen Jump as a Diagnostic of the Diffuse Nebular Continuum Emission in Active Galactic Nuclei*. <i>Astrophysical Journal</i> , 2022, 927, 60.	4.5	5
92	Deciphering the 3D Orion Nebula. II. A Low Ionization Region of Multiple Velocity Components Southwest of λ Ori. Confounds Interpretation of Low Velocity Resolution Studies of Temperature, Density, and Abundance. <i>Astrophysical Journal</i> , 2021, 907, 119.	4.5	4
93	Cloudy in the Microcalorimeter Era: Improved Energies for $K\alpha$ Transitions. <i>Research Notes of the AAS</i> , 2020, 4, 184.	0.7	4
94	Dense Molecular Clouds in the Crab Supernova Remnant. <i>Astrophysical Journal</i> , 2022, 925, 59.	4.5	3
95	Magnetic fields and the location of the PDR. <i>EAS Publications Series</i> , 2008, 31, 53-56.	0.3	2
96	Ro-vibrational analysis of SiO in UV-irradiated environments. <i>Molecular Astrophysics</i> , 2018, 13, 6-21.	1.6	2
97	Self-consistent grain depletions and abundances I: The Orion Nebula as a test case. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	2
98	A Practical Guide to the Partition Function of Atoms and Ions. <i>Publications of the Astronomical Society of the Pacific</i> , 2022, 134, 073001.	3.1	2
99	Observational Consequences of Fine-Structure Line Optical Depths on Infrared Spectral Diagnostics. <i>Publications of the Astronomical Society of the Pacific</i> , 2003, 115, 188-192.	3.1	1
100	Hypermassive black holes have faint broad and narrow emission lines. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 2992-3010.	4.4	1
101	Deciphering the 3D Orion Nebula. III. Structure on the NE Boundary of the Orion-S Embedded Molecular Cloud. <i>Astrophysical Journal</i> , 2021, 908, 162.	4.5	1
102	Cloudy in the Microcalorimeter Era: Improved Energies for Si and S $K\alpha$ Fluorescence Lines. <i>Research Notes of the AAS</i> , 2021, 5, 149.	0.7	1
103	Spectra of Symbiotic Stars. <i>International Astronomical Union Colloquium</i> , 1983, 72, 35-40.	0.1	0
104	The Chemical Evolution of QSOs. , 1994, , 227-230.		0
105	High Metallicities in QSOs. , 1994, , 220-226.		0
106	Revisiting the torus: spectral predictions from the IR to the X-ray. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2004, 132, 145-148.	0.4	0
107	Division VI: Interstellar Matter. <i>Proceedings of the International Astronomical Union</i> , 2005, 1, 267-271.	0.0	0
108	Expanding cloudy with third-party databases. <i>EAS Publications Series</i> , 2008, 31, 199-200.	0.3	0

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109	New Results on Quasar Outflows. Proceedings of the International Astronomical Union, 2009, 5, 399-399.	0.0	0
110	DIVISION VI: INTERSTELLAR MATTER. Proceedings of the International Astronomical Union, 2010, 6, 213-214.	0.0	0
111	Dielectric recombination and stability of warm gas in AGN. , 2012, , .		0
112	Deciphering the 3D Orion Nebula-IV: The HH 269 Flow Emerges from the Orion-S Embedded Molecular Cloud. Astrophysical Journal, 2021, 909, 97.	4.5	0