Christiane Helling

List of Publications by Year
in descending order

138 papers	5,745 citations	71102 41 h-index	95266 68 g-index
144 all docs	144 docs citations	144 times ranked	3267 citing authors

#	Article	IF	Citations
1	The atmospheres of rocky exoplanets. Astronomy and Astrophysics, 2022, 658, A180.	5.1	7
2	MOVES â€“ V. Modelling starâ€“planet magnetic interactions of HD 189733. Monthly Notices of the Royal Astronomical Society, 2022, 512, 4556-4572.	4.4	4
3	MOVES â€“ IV. Modelling the influence of stellar XUV-flux, cosmic rays, and stellar energetic particles on the atmospheric composition of the hot Jupiter HDÂ189733b. Monthly Notices of the Royal Astronomical Society, 2021, 502, 6201-6215.	4.4	23
4	Coexistence of CH₄, CO₂, and H₂O in exoplanet atmospheres. Astronomy and Astrophysics, 2021, 646, A43.	5.1	13
5	Understanding the atmospheric properties and chemical composition of the ultra-hot Jupiter HAT-P-7b. Astronomy and Astrophysics, 2021, 648, A80.	5.1	9
6	Cloud property trends in hot and ultra-hot giant gas planets (WASP-43b, WASP-103b, WASP-121b,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	5.1	32
7	Transmission spectroscopy with VLT FORS2: a featureless spectrum for the low-density transiting exoplanet WASP-88b. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2853-2870.	4.4	9
8	Ground-based Transmission Spectroscopy with VLT FORS2: Evidence for Faculae and Clouds in the Optical Spectrum of the Warm Saturn WASP-110b. Astronomical Journal, 2021, 162, 88.	4.7	6
9	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2021, 654, A120.	5.1	7
10	Exploring terrestrial lightning parameterisations for exoplanets and brown dwarfs. Planetary and Space Science, 2021, 204, 105247.	1.7	1
11	Ground-based transmission spectroscopy with FORS2: A featureless optical transmission spectrum and detection of H2O for the ultra-hot Jupiter WASP-103b. Monthly Notices of the Royal Astronomical Society, 2020, 497, 5155-5170.	4.4	20
12	Understanding the atmospheric properties and chemical composition of the ultra-hot Jupiter HAT-P-7b. Astronomy and Astrophysics, 2020, 635, A31.	5.1	16
13	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2020, 634, A23.	5.1	20
14	Large-scale changes of the cloud coverage in the Ïµ Indi Ba and Bb system. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3881-3899.	4.4	8
15	The atmospheres of rocky exoplanets. Astronomy and Astrophysics, 2020, 636, A71.	5.1	26
16	MOVES III. Simultaneous X-ray and ultraviolet observations unveiling the variable environment of the hot Jupiter HDâ€‰189733b. Monthly Notices of the Royal Astronomical Society, 2020, 493, 559-579.	4.4	20
17	Atmospheric characterization of the ultra-hot Jupiter MASCARA-2b/KELT-20b. Astronomy and Astrophysics, 2020, 640, C6.	5.1	7
18	Aluminium oxide in the atmosphere of hot Jupiter WASP-43b. Astronomy and Astrophysics, 2020, 639, A3.	5.1	26

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19	The ARCiS framework for exoplanet atmospheres. Astronomy and Astrophysics, 2020, 642, A28.	5.1	53
20	Mineral snowflakes on exoplanets and brown dwarfs. Astronomy and Astrophysics, 2020, 639, A107.	5.1	16
21	Mineral cloud and hydrocarbon haze particles in the atmosphere of the hot Jupiter JWST target WASP-43b. Astronomy and Astrophysics, 2020, 641, A178.	5.1	31
22	Sparkling nights and very hot days on WASP-18b: the formation of clouds and the emergence of an ionosphere. Astronomy and Astrophysics, 2019, 626, A133.	5.1	52
23	Lightning in other planets. Journal of Physics: Conference Series, 2019, 1322, 012028.	0.4	5
24	Lightning and charge processes in brown dwarf and exoplanet atmospheres. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180398.	3.4	18
25	MOVES â€“ II. Tuning in to the radio environment of HD189733b. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4529-4538.	4.4	26
26	Exoplanet Clouds. Annual Review of Earth and Planetary Sciences, 2019, 47, 583-606.	11.0	58
27	Tuning in to the radio environment of HD189733b. Proceedings of the International Astronomical Union, 2019, 15, 305-309.	0.0	0
28	Understanding the atmospheric properties and chemical composition of the ultra-hot Jupiter HAT-P-7b. Astronomy and Astrophysics, 2019, 631, A79.	5.1	51
29	Atmospheric characterization of the ultra-hot Jupiter MASCARA-2b/KELT-20b. Astronomy and Astrophysics, 2019, 628, A9.	5.1	117
30	Environmental effects on the ionisation of brown dwarf atmospheres. Astronomy and Astrophysics, 2018, 618, A107.	5.1	12
31	Triboelectrification of KCl and ZnS Particles in Approximated Exoplanet Environments. Astrophysical Journal, 2018, 867, 123.	4.5	14
32	Simulating the cloudy atmospheres of HD 209458 b and HD 189733 b with the 3D Met Office Unified Model. Astronomy and Astrophysics, 2018, 615, A97.	5.1	84
33	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2018, 614, A126.	5.1	29
34	Exonephology: transmission spectra from a 3D simulated cloudy atmosphere of HD 209458b. Monthly Notices of the Royal Astronomical Society, 2018, 481, 194-205.	4.4	45
35	Equilibrium chemistry down to 100 K. Astronomy and Astrophysics, 2018, 614, A1.	5.1	140
36	An absolute sodium abundance for a cloud-free â€˜hot Saturnâ€™ exoplanet. Nature, 2018, 557, 526-529.	27.8	114

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37	OGLE-2017-BLG-0329L: A Microlensing Binary Characterized with Dramatically Enhanced Precision Using Data from Space-based Observations. Astrophysical Journal, 2018, 859, 82.	4.5	6
38	Dynamic mineral clouds on HD 189733b. Astronomy and Astrophysics, 2017, 601, A22.	5.1	38
39	Emission lines in the atmosphere of the irradiated brown dwarf WD0137â˜349B. Monthly Notices of the Royal Astronomical Society, 2017, 471, 1728-1736.	4.4	29
40	Dust in brown dwarfs and extrasolar planets. Astronomy and Astrophysics, 2017, 603, A123.	5.1	21
41	Lightning chemistry on Earth-like exoplanets. Monthly Notices of the Royal Astronomical Society, 2017, 470, 187-196.	4.4	55
42	Cloud formation in metal-rich atmospheres of hot super-Earths like 55 Cnc e and CoRoT7b. Monthly Notices of the Royal Astronomical Society, 2017, 472, 447-464.	4.4	45
43	MOVES â€“ I. The evolving magnetic field of the planet-hosting star HD189733. Monthly Notices of the Royal Astronomical Society, 2017, 471, 1246-1257.	4.4	54
44	Self-consistent atmosphere modeling with cloud formation for low-mass stars and exoplanets. Astronomy and Astrophysics, 2017, 608, A70.	5.1	12
45	A CHEMICAL KINETICS NETWORK FOR LIGHTNING AND LIFE IN PLANETARY ATMOSPHERES. Astrophysical Journal, Supplement Series, 2016, 224, 9.	7.7	102
46	Dynamic mineral clouds on HD 189733b. Astronomy and Astrophysics, 2016, 594, A48.	5.1	117
47	Is lightning a possible source of the radio emission on HAT-P-11b?. Monthly Notices of the Royal Astronomical Society, 2016, 461, 1222-1226.	4.4	40
48	Lightning climatology of exoplanets and brown dwarfs guided by Solar system data. Monthly Notices of the Royal Astronomical Society, 2016, 461, 3927-3947.	4.4	49
49	The mineral clouds on HDÂ209458b and HDÂ189733b. Monthly Notices of the Royal Astronomical Society, 2016, 460, 855-883.	4.4	92
50	Atmospheric Electrification in Dusty, Reactive Gases in the Solar System and Beyond. Surveys in Geophysics, 2016, 37, 705-756.	4.6	19
51	Ionisation and discharge in cloud-forming atmospheres of brown dwarfs and extrasolar planets. Plasma Physics and Controlled Fusion, 2016, 58, 074003.	2.1	14
52	Flash ionization signature in coherent cyclotron emission from brown dwarfs. Monthly Notices of the Royal Astronomical Society, 2016, 458, 1041-1056.	4.4	7
53	Direct Imaging discovery of a second planet candidate around the possibly transiting planet host CVSO 30. Astronomy and Astrophysics, 2016, 593, A75.	5.1	10
54	EXTENDED BASELINE PHOTOMETRY OF RAPIDLY CHANGING WEATHER PATTERNS ON THE BROWN DWARF BINARY LUHMAN-16. Astrophysical Journal, 2015, 812, 161.	4.5	7

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55	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2015, 575, A11.	5.1	36
56	Planetary host stars: evaluating uncertainties in cool model atmospheres. Monthly Notices of the Royal Astronomical Society, 2015, 450, 160-182.	4.4	1
57	THE FIRST MILLIMETER DETECTION OF A NON-ACCRETING ULTRACOOL DWARF. Astrophysical Journal, 2015, 815, 64.	4.5	30
58	Modelling the local and global cloud formation on HD 189733b. Astronomy and Astrophysics, 2015, 580, A12.	5.1	63
59	Inhomogeneous cloud coverage through the Coulomb explosion of dust in substellar atmospheres. Astronomy and Astrophysics, 2015, 579, A41.	5.1	12
60	Reference study to characterize plasma and magnetic properties of ultracool atmospheres. Monthly Notices of the Royal Astronomical Society, 2015, 454, 3977-3995.	4.4	33
61	CHARACTERIZATION OF LOW-MASS, WIDE-SEPARATION SUBSTELLAR COMPANIONS TO STARS IN UPPER SCORPIUS: NEAR-INFRARED PHOTOMETRY AND SPECTROSCOPY. Astrophysical Journal, 2015, 802, 61.	4.5	36
62	Multiwaveband photometry of the irradiated brown dwarf WD0137â^'349B. Monthly Notices of the Royal Astronomical Society, 2015, 447, 3218-3226.	4.4	44
63	Atmospheres of brown dwarfs. Astronomy and Astrophysics Review, 2014, 22, 1.	25.5	63
64	JUPITER AS A GIANT COSMIC RAY DETECTOR. Astrophysical Journal Letters, 2014, 787, L25.	8.3	12
65	Careers in astronomy in Germany and the UK. Astronomy and Geophysics, 2014, 55, 2.31-2.37.	0.2	1
66	Electrostatic activation of prebiotic chemistry in substellar atmospheres. International Journal of Astrobiology, 2014, 13, 165-172.	1.6	10
67	The influence of galactic cosmic rays on ionâ€“neutral hydrocarbon chemistry in the upper atmospheres of free-floating exoplanets. International Journal of Astrobiology, 2014, 13, 173-181.	1.6	41
68	IONIZATION IN ATMOSPHERES OF BROWN DWARFS AND EXTRASOLAR PLANETS VI: PROPERTIES OF LARGE-SCALE DISCHARGE EVENTS. Astrophysical Journal, 2014, 784, 43.	4.5	44
69	Disk Evolution, Element Abundances and Cloud Properties of Young Gas Giant Planets. Life, 2014, 4, 142-173.	2.4	76
70	Characterization of the gaseous companionÎ²Andromedae b. Astronomy and Astrophysics, 2014, 562, A111.	5.1	44
71	First spectroscopic observations of the substellar companion of the young debris disk star PZ Telescopii. Astronomy and Astrophysics, 2014, 566, A85.	5.1	13
72	Physical and orbital properties ofÎ²Pictoris b. Astronomy and Astrophysics, 2014, 567, L9.	5.1	54

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73	Dust cloud lightning in extraterrestrial atmospheres. Planetary and Space Science, 2013, 77, 152-157.	1.7	10
74	M dwarf stars in the light of (future) exoplanet searches. Astronomische Nachrichten, 2013, 334, 155-158.	1.2	5
75	Energetic Charged Particles Above Thunderclouds. Surveys in Geophysics, 2013, 34, 1-41.	4.6	26
76	Small hydrocarbon molecules in cloud-forming brown dwarf and giant gas planet atmospheres. Monthly Notices of the Royal Astronomical Society, 2013, 435, 1888-1903.	4.4	28
77	IONIZATION IN ATMOSPHERES OF BROWN DWARFS AND EXTRASOLAR PLANETS. III. BREAKDOWN CONDITIONS FOR MINERAL CLOUDS. Astrophysical Journal, 2013, 767, 136.	4.5	62
78	IONIZATION IN ATMOSPHERES OF BROWN DWARFS AND EXTRASOLAR PLANETS. IV. THE EFFECT OF COSMIC RAYS. Astrophysical Journal, 2013, 774, 108.	4.5	64
79	Electron acceleration above thunderclouds. Environmental Research Letters, 2013, 8, 035027.	5.2	22
80	IONIZATION IN ATMOSPHERES OF BROWN DWARFS AND EXTRASOLAR PLANETS. V. ALFVÃ‰N IONIZATION. Astrophysical Journal, 2013, 776, 11.	4.5	42
81	Clouds in brown dwarfs and giant planets. Astronomische Nachrichten, 2013, 334, 40-43.	1.2	17
82	Modelling the formation of atmospheric dust in brown dwarfs and planetary atmospheres. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20110581.	3.4	37
83	Cosmic Rays, UV Photons, and Haze Formation in the Upper Atmospheres of Hot Jupiters. Proceedings of the International Astronomical Union, 2013, 8, 303-304.	0.0	2
84	The Influence of AlfvÃ©n Ionization on Exoplanetary Atmospheres. Proceedings of the International Astronomical Union, 2013, 8, 384-385.	0.0	0
85	Cloud and Gas Ionisation in Atmosphere of Gas-Giant Planets. Proceedings of the International Astronomical Union, 2012, 8, 292-296.	0.0	0
86	Career situation of female astronomers in Germany. Astronomische Nachrichten, 2012, 333, 280-286.	1.2	3
87	Spectroscopy across the brown dwarf/planetary mass boundary. Astronomy and Astrophysics, 2012, 540, A85.	5.1	43
88	Physical parameters of a sample of M dwarfs from high-resolution near-infrared spectra. EPJ Web of Conferences, 2011, 16, 04006.	0.3	1
89	Probing Bow Shocks Around Exoplanets During Transits. Proceedings of the International Astronomical Union, 2011, 7, 117-118.	0.0	0
90	IONIZATION IN ATMOSPHERES OF BROWN DWARFS AND EXTRASOLAR PLANETS. I. THE ROLE OF ELECTRON AVALANCHE. Astrophysical Journal, 2011, 727, 4.	4.5	63

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91	DISCOVERY OF AN â^¼23M_{Jup}BROWN DWARF ORBITING â^¼700 AU FROM THE MASSIVE STAR HIP 78530 IN UPPER SCORPIUS. Astrophysical Journal, 2011, 730, 42.	4.5	56
92	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2011, 529, A44.	5.1	89
93	IONIZATION IN ATMOSPHERES OF BROWN DWARFS AND EXTRASOLAR PLANETS. II. DUST-INDUCED COLLISIONAL IONIZATION. Astrophysical Journal, 2011, 737, 38.	4.5	70
94	Transit variability in bow shock-hosting planets. Monthly Notices of the Royal Astronomical Society, 2011, 414, 1573-1582.	4.4	88
95	Prospects for detection of exoplanet magnetic fields through bow-shock observations during transits. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 411, L46-L50.	3.3	88
96	Discovery of carbon monoxide in the upper atmosphere of Pluto. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 414, L36-L40.	3.3	17
97	The shocking transit of WASP-12b: modelling the observed early ingress in the near-ultraviolet. Monthly Notices of the Royal Astronomical Society: Letters, 2011, 416, L41-L44.	3.3	80
98	Shock formation around planets orbiting Mâ€dwarf stars. Astronomische Nachrichten, 2011, 332, 1055-1061.	1.2	39
99	Detecting planets around very cool dwarfs at near infrared wavelengths with the radial velocity technique. Astronomy and Astrophysics, 2011, 532, A31.	5.1	15
100	The influence of non-isotropic scattering of thermal radiation on spectra of brown dwarfs and hot exoplanets. Astronomy and Astrophysics, 2011, 531, A67.	5.1	17
101	METALS IN THE EXOSPHERE OF THE HIGHLY IRRADIATED PLANET WASP-12b. Astrophysical Journal Letters, 2010, 714, L222-L227.	8.3	300
102	MASS TRANSFER, TRANSITING STREAM, AND MAGNETOPAUSE IN CLOSE-IN EXOPLANETARY SYSTEMS WITH APPLICATIONS TO WASP-12. Astrophysical Journal, 2010, 721, 923-928.	4.5	108
103	STUDYING THE PHYSICAL DIVERSITY OF LATE-M DWARFS WITH DYNAMICAL MASSES, ,. Astrophysical Journal, 2010, 721, 1725-1747.	4.5	81
104	The impact of stellar model spectra in disc detection. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 409, L49-L53.	3.3	33
105	EARLY UV INGRESS IN WASP-12b: MEASURING PLANETARY MAGNETIC FIELDS. Astrophysical Journal Letters, 2010, 722, L168-L172.	8.3	153
106	OPTICAL AND NEAR-INFRARED SPECTROSCOPY OF THE L SUBDWARF SDSS J125637.13-022452.4. Astrophysical Journal, 2009, 697, 148-159.	4.5	46
107	Observation and modelling of dusty, low gravity L, and M dwarfs. , 2009, , .		0
108	Lightning In Brown Dwarfs?. , 2009, , .		0

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109	Cloud formation in substellar atmospheres. , 2009, , .		2
110	The Cosmological Evolution of Dust Clouds in Brown Dwarf Atmospheres. , 2009, , .		0
111	Medium-resolution infrared integral field spectroscopy of the brown dwarf TWA 5 B. , 2009, , .		2
112	Gas-phase mean opacities for varying [M/H], N/O and C/O. Monthly Notices of the Royal Astronomical Society, 2009, 398, 985-994.	4.4	13
113	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2009, 506, 1367-1380.	5.1	95
114	Glittery clouds in exoplanetary atmospheres?. International Journal of Astrobiology, 2009, 8, 3-8.	1.6	16
115	The influence of dust formation modelling on Na <scp>i</scp> and K <scp>i</scp> line profiles in substellar atmospheres. Monthly Notices of the Royal Astronomical Society: Letters, 2008, 385, L120-L124.	3.3	7
116	A comparison of chemistry and dust cloud formation in ultracool dwarf model atmospheres. Monthly Notices of the Royal Astronomical Society, 2008, 391, 1854-1873.	4.4	167
117	Direct evidence of a sub-stellar companion around CT Chamaeleontis. Astronomy and Astrophysics, 2008, 491, 311-320.	5.1	66
118	Consistent Simulations of Substellar Atmospheres and Nonequilibrium Dust Cloud Formation. Astrophysical Journal, 2008, 675, L105-L108.	4.5	111
119	Dust in brown dwarfs and extra-solar planets. Astronomy and Astrophysics, 2008, 485, 547-560.	5.1	131
120	Silicate, ruby, opal â€“ Why gas giants keep their jewels in the atmosphere. Proceedings of the International Astronomical Union, 2007, 3, 167-172.	0.0	0
121	Comparison of cloud models for Brown Dwarfs. Proceedings of the International Astronomical Union, 2007, 3, 173-177.	0.0	2
122	Detectability of dirty dust grains in brown dwarf atmospheres. Astronomy and Astrophysics, 2006, 451, L9-L12.	5.1	28
123	Chemical composition of dust clouds in turbulent brown dwarf atmospheres. Proceedings of the International Astronomical Union, 2006, 2, 224-226.	0.0	3
124	The influence of convective energy transport on dust formation in brown dwarf atmospheres. Proceedings of the International Astronomical Union, 2006, 2, 227-229.	0.0	4
125	Dust in brown dwarfs. Astronomy and Astrophysics, 2006, 455, 325-338.	5.1	140
126	Dust in brown dwarfs. Astronomy and Astrophysics, 2004, 414, 335-350.	5.1	99

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127	Dust in brown dwarfs. Astronomy and Astrophysics, 2004, 423, 657-675.	5.1	37
128	Rosseland and Planck mean opacities for protoplanetary discs. Astronomy and Astrophysics, 2003, 410, 611-621.	5.1	422
129	Dust in brown dwarfs. Astronomy and Astrophysics, 2003, 399, 297-313.	5.1	132
130	Dust Formation in Turbulent Media. , 2001, , 515-524.		3
131	Circumstellar dust shells around long-period variables. Astronomy and Astrophysics, 2001, 366, 229-240.	5.1	9
132	Dust in brown dwarfs. Astronomy and Astrophysics, 2001, 376, 194-212.	5.1	61
133	Circuit of Dust in Substellar Objects. , 0, , 115-131.		1
134	Dust Formation in Substellar Atmospheres: A Multi-Scale Problem. , 0, , 503-509.		0
135	Robust detection of quasi-periodic variability: A HAWKI mini survey of late T dwarfs. Monthly Notices of the Royal Astronomical Society, 0, , stw3376.	4.4	13
136	Exo-lightning radio emission: The case study of HAT-P-11b. , 0, , .		1
137	Insight into atmospheres of extrasolar planets through plasma processes. , 0, , .		0
138	Mineral snowflakes on exoplanets and brown dwarfs. Coagulation and fragmentation of cloud particles with HyLandS. Astronomy and Astrophysics, 0, , .	5.1	6