Simon L Grimm

List of Publications by Year
in descending order

36 papers	2,863 citations	201674 27 h-index	345221 36 g-index
36 all docs	36 docs citations	36 times ranked	2110 citing authors

#	Article	IF	Citations
1	A seven-planet resonant chain in TRAPPIST-1. Nature Astronomy, 2017, 1, .	10.1	263
2	The nature of the TRAPPIST-1 exoplanets. Astronomy and Astrophysics, 2018, 613, A68.	5.1	246
3	Atmospheric reconnaissance of the habitable-zone Earth-sized planets orbiting TRAPPIST-1. Nature Astronomy, 2018, 2, 214-219.	10.1	179
4	Atomic iron and titanium in the atmosphere of the exoplanet KELT-9b. Nature, 2018, 560, 453-455.	27.8	179
5	Refining the Transit-timing and Photometric Analysis of TRAPPIST-1: Masses, Radii, Densities, Dynamics, and Ephemerides. Planetary Science Journal, 2021, 2, 1.	3.6	161
6	ExoMol molecular line lists â€" XXXIII. The spectrum of Titanium Oxide. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2836-2854.	4.4	149
7	A spectral survey of an ultra-hot Jupiter. Astronomy and Astrophysics, 2019, 627, A165.	5.1	145
8	Habitable Moist Atmospheres on Terrestrial Planets near the Inner Edge of the Habitable Zone around M Dwarfs. Astrophysical Journal, 2017, 845, 5.	4.5	138
9	<tt>HELIOS-K</tt>: AN ULTRAFAST, OPEN-SOURCE OPACITY CALCULATOR FOR RADIATIVE TRANSFER. Astrophysical Journal, 2015, 808, 182.	4.5	129
10	HELIOS: AN OPEN-SOURCE, GPU-ACCELERATED RADIATIVE TRANSFER CODE FOR SELF-CONSISTENT EXOPLANETARY ATMOSPHERES. Astronomical Journal, 2017, 153, 56.	4.7	128
11	HELIOSâ€"RETRIEVAL: An Open-source, Nested Sampling Atmospheric Retrieval Code; Application to the HR 8799 Exoplanets and Inferred Constraints for Planet Formation. Astronomical Journal, 2017, 154, 91.	4.7	101
12	ACCESS: a featureless optical transmission spectrum for WASP-19b from Magellan/IMACS. Monthly Notices of the Royal Astronomical Society, 2019, 482, 2065-2087.	4.4	99
13	THE GENGA CODE: GRAVITATIONAL ENCOUNTERS IN<i>N</i>-BODY SIMULATIONS WITH GPU ACCELERATION. Astrophysical Journal, 2014, 796, 23.	4.5	85
14	HELIOS-K 2.0 Opacity Calculator and Open-source Opacity Database for Exoplanetary Atmospheres. Astrophysical Journal, Supplement Series, 2021, 253, 30.	7.7	74
15	THOR: A NEW AND FLEXIBLE GLOBAL CIRCULATION MODEL TO EXPLORE PLANETARY ATMOSPHERES. Astrophysical Journal, 2016, 829, 115.	4.5	72
16	Self-luminous and Irradiated Exoplanetary Atmospheres Explored with HELIOS. Astronomical Journal, 2019, 157, 170.	4.7	71
17	Three-dimensional Circulation Driving Chemical Disequilibrium in WASP-43b. Astrophysical Journal, 2018, 869, 107.	4.5	64
18	Helios-r2: A New Bayesian, Open-source Retrieval Model for Brown Dwarfs and Exoplanet Atmospheres. Astrophysical Journal, 2020, 890, 174.	4.5	54

#	Article	IF	Citations
19	Toward Consistent Modeling of Atmospheric Chemistry and Dynamics in Exoplanets: Validation and Generalization of the Chemical Relaxation Method. Astrophysical Journal, 2018, 862, 31.	4.5	50
20	Retrieval Analysis of the Emission Spectrum of WASP-12b: Sensitivity of Outcomes to Prior Assumptions and Implications for Formation History. Astrophysical Journal Letters, 2017, 847, L3.	8.3	49
21	Interior Characterization in Multiplanetary Systems: TRAPPIST-1. Astrophysical Journal, 2018, 865, 20.	4.5	49
22	Combining low- to high-resolution transit spectroscopy of HD 189733b. Astronomy and Astrophysics, 2018, 612, A53.	5.1	42
23	High-resolution transmission spectroscopy of MASCARA-2 b with EXPRES. Astronomy and Astrophysics, 2020, 641, A120.	5.1	41
24	Titanium oxide and chemical inhomogeneity in the atmosphere of the exoplanet WASP-189 b. Nature Astronomy, 2022, 6, 449-457.	10.1	40
25	Stochasticity and predictability in terrestrial planet formation. Monthly Notices of the Royal Astronomical Society, 2017, 465, 2170-2188.	4.4	39
26	Interpreting High-resolution Spectroscopy of Exoplanets using Cross-correlations and Supervised Machine Learning. Astronomical Journal, 2020, 159, 192.	4.7	33
27	Simulating gas giant exoplanet atmospheres with Exo-FMS: comparing semigrey, picket fence, and correlated-k radiative-transfer schemes. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2695-2711.	4.4	31
28	THOR 2.0: Major Improvements to the Open-source General Circulation Model. Astrophysical Journal, Supplement Series, 2020, 248, 30.	7.7	29
29	An upper limit on late accretion and water delivery in the TRAPPIST-1 exoplanet system. Nature Astronomy, 2022, 6, 80-88.	10.1	25
30	Exoplanetary Monte Carlo radiative transfer with correlated-k – I. Benchmarking transit and emission observables. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2082-2096.	4.4	21
31	3D Radiative Transfer for Exoplanet Atmospheres. gCMCRT: A GPU-accelerated MCRT Code. Astrophysical Journal, 2022, 929, 180.	4.5	20
32	Impact of tides on the transit-timing fits to the TRAPPIST-1 system. Astronomy and Astrophysics, 2020, 635, A117.	5.1	19
33	Information Content of JWST NIRSpec Transmission Spectra of Warm Neptunes. Astronomical Journal, 2020, 160, 15.	4.7	16
34	Mars' Formation Can Constrain the Primordial Orbits of the Gas Giants. Astrophysical Journal Letters, 2021, 910, L16.	8.3	8
35	The THOR+HELIOS general circulation model: multiwavelength radiative transfer with accurate scattering by clouds/hazes. Monthly Notices of the Royal Astronomical Society, 2022, 512, 3759-3787.	4.4	7
36	GENGA. II. GPU Planetary N-body Simulations with Non-Newtonian Forces and High Number of Particles. Astrophysical Journal, 2022, 932, 124.	4.5	7