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	An upper limit on late accretion and water delivery in the TRAPPIST-1 exoplanet system. Nature Astronomy, 2022, 6, 80-88.	10.1	25
2	Titanium oxide and chemical inhomogeneity in the atmosphere of the exoplanet WASP-189 b. Nature Astronomy, 2022, 6, 449-457.	10.1	40
3	The <tt>THORÂ+ÂHELIOS</tt> 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
4	3D Radiative Transfer for Exoplanet Atmospheres. gCMCRT: A GPU-accelerated MCRT Code. Astrophysical Journal, 2022, 929, 180.	4.5	20
5	GENGA. II. GPU Planetary N-body Simulations with Non-Newtonian Forces and High Number of Particles. Astrophysical Journal, 2022, 932, 124.	4.5	7
6	Marsâ€™ Formation Can Constrain the Primordial Orbits of the Gas Giants. Astrophysical Journal Letters, 2021, 910, L16.	8.3	8
7	HELIOS-K 2.0 Opacity Calculator and Open-source Opacity Database for Exoplanetary Atmospheres. Astrophysical Journal, Supplement Series, 2021, 253, 30.	7.7	74
8	Simulating gas giant exoplanet atmospheres with <scp>Exo-FMS</scp>: comparing semigrey, picket fence, and correlated-<i>k</i> radiative-transfer schemes. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2695-2711.	4.4	31
9	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
10	Helios-r2: A New Bayesian, Open-source Retrieval Model for Brown Dwarfs and Exoplanet Atmospheres. Astrophysical Journal, 2020, 890, 174.	4.5	54
11	Impact of tides on the transit-timing fits to the TRAPPIST-1 system. Astronomy and Astrophysics, 2020, 635, A117.	5.1	19
12	High-resolution transmission spectroscopy of MASCARA-2 b with EXPRES. Astronomy and Astrophysics, 2020, 641, A120.	5.1	41
13	Interpreting High-resolution Spectroscopy of Exoplanets using Cross-correlations and Supervised Machine Learning. Astronomical Journal, 2020, 159, 192.	4.7	33
14	Information Content of JWST NIRSpec Transmission Spectra of Warm Neptunes. Astronomical Journal, 2020, 160, 15.	4.7	16
15	THOR 2.0: Major Improvements to the Open-source General Circulation Model. Astrophysical Journal, Supplement Series, 2020, 248, 30.	7.7	29
16	Exoplanetary Monte Carlo radiative transfer with correlated-<i>k</i> â€“ I. Benchmarking transit and emission observables. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2082-2096.	4.4	21
17	A spectral survey of an ultra-hot Jupiter. Astronomy and Astrophysics, 2019, 627, A165.	5.1	145
18	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

#	Article	IF	Citations
19	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
20	Self-luminous and Irradiated Exoplanetary Atmospheres Explored with HELIOS. Astronomical Journal, 2019, 157, 170.	4.7	71
21	Atmospheric reconnaissance of the habitable-zone Earth-sized planets orbiting TRAPPIST-1. Nature Astronomy, 2018, 2, 214-219.	10.1	179
22	Three-dimensional Circulation Driving Chemical Disequilibrium in WASP-43b. Astrophysical Journal, 2018, 869, 107.	4.5	64
23	Combining low- to high-resolution transit spectroscopy of HD 189733b. Astronomy and Astrophysics, 2018, 612, A53.	5.1	42
24	Interior Characterization in Multiplanetary Systems: TRAPPIST-1. Astrophysical Journal, 2018, 865, 20.	4.5	49
25	The nature of the TRAPPIST-1 exoplanets. Astronomy and Astrophysics, 2018, 613, A68.	5.1	246
26	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
27	Atomic iron and titanium in the atmosphere of the exoplanet KELT-9b. Nature, 2018, 560, 453-455.	27.8	179
28	HELIOS: AN OPEN-SOURCE, GPU-ACCELERATED RADIATIVE TRANSFER CODE FOR SELF-CONSISTENT EXOPLANETARY ATMOSPHERES. Astronomical Journal, 2017, 153, 56.	4.7	128
29	A seven-planet resonant chain in TRAPPIST-1. Nature Astronomy, 2017, 1, .	10.1	263
30	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
31	Stochasticity and predictability in terrestrial planet formation. Monthly Notices of the Royal Astronomical Society, 2017, 465, 2170-2188.	4.4	39
32	HELIOS–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
33	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
34	THOR: A NEW AND FLEXIBLE GLOBAL CIRCULATION MODEL TO EXPLORE PLANETARY ATMOSPHERES. Astrophysical Journal, 2016, 829, 115.	4.5	72
35	`HELIOS-K`: AN ULTRAFAST, OPEN-SOURCE OPACITY CALCULATOR FOR RADIATIVE TRANSFER. Astrophysical Journal, 2015, 808, 182.	4.5	129
36	THE GENGA CODE: GRAVITATIONAL ENCOUNTERS IN N-BODY SIMULATIONS WITH GPU ACCELERATION. Astrophysical Journal, 2014, 796, 23.	4.5	85