Dimitar D Sasselov

List of Publications by Year
in descending order

113	20,162	22153	26613
papers	citations	59 h-index	107 g-index

115	115	115	7510
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kepler Planet-Detection Mission: Introduction and First Results. Science, 2010, 327, 977-980.	12.6	2,848
2	Transiting Exoplanet Survey Satellite. Journal of Astronomical Telescopes, Instruments, and Systems, 2014, 1, 014003.	1.8	2,300
3	KEPLER MISSION DESIGN, REALIZED PHOTOMETRIC PERFORMANCE, AND EARLY SCIENCE. Astrophysical Journal Letters, 2010, 713, L79-L86.	8.3	941
4	PLANET OCCURRENCE WITHIN 0.25 AU OF SOLAR-TYPE STARS FROM KEPLER. Astrophysical Journal, Supplement Series, 2012, 201, 15.	7.7	871
5	CHARACTERISTICS OF PLANETARY CANDIDATES OBSERVED BYKEPLER. II. ANALYSIS OF THE FIRST FOUR MONTHS OF DATA. Astrophysical Journal, 2011, 736, 19.	4.5	859
6	PLANETARY CANDIDATES OBSERVED BY KEPLER . III. ANALYSIS OF THE FIRST 16 MONTHS OF DATA. Astrophysical Journal, Supplement Series, 2013, 204, 24.	7.7	823
7	The Revised TESS Input Catalog and Candidate Target List. Astronomical Journal, 2019, 158, 138.	4.7	577
8	Transiting Exoplanet Survey Satellite (TESS). Proceedings of SPIE, 2014, , .	0.8	566
9	A closely packed system of low-mass, low-density planets transiting Kepler-11. Nature, 2011, 470, 53-58.	27.8	553
10	KEPLER'S FIRST ROCKY PLANET: KEPLER-10b. Astrophysical Journal, 2011, 729, 27.	4.5	473
11	Internal structure of massive terrestrial planets. Icarus, 2006, 181, 545-554.	2.5	436
12	MASSES, RADII, AND ORBITS OF SMALL KEPLER PLANETS: THE TRANSITION FROM GASEOUS TO ROCKY PLANETS. Astrophysical Journal, Supplement Series, 2014, 210, 20.	7.7	418
13	Kepler-9: A System of Multiple Planets Transiting a Sun-Like Star, Confirmed by Timing Variations. Science, 2010, 330, 51-54.	12.6	339
14	Kepler-36: A Pair of Planets with Neighboring Orbits and Dissimilar Densities. Science, 2012, 337, 556-559.	12.6	335
15	Growth model interpretation of planet size distribution. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9723-9728.	7.1	311
16	MASSâ€“RADIUS RELATION FOR ROCKY PLANETS BASED ON PREM. Astrophysical Journal, 2016, 819, 127.	4.5	293
17	Detailed Models of Superâ€Earths: How Well Can We Infer Bulk Properties?. Astrophysical Journal, 2007, 665, 1413-1420.	4.5	268
18	Three regimes of extrasolar planet radius inferred from host star metallicities. Nature, 2014, 509, 593-595.	27.8	249

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19	A SUPER-EARTH TRANSITING A NAKED-EYE STAR. Astrophysical Journal Letters, 2011, 737, L18.	8.3	243
20	Inevitability of Plate Tectonics on Super-Earths. Astrophysical Journal, 2007, 670, L45-L48.	4.5	229
21	Harps-N: the new planet hunter at TNG. Proceedings of SPIE, 2012, , .	0.8	219
22	MODELINGKEPLERTRANSIT LIGHT CURVES AS FALSE POSITIVES: REJECTION OF BLEND SCENARIOS FOR KEPLER-9, AND VALIDATION OF KEPLER-9 d, A SUPER-EARTH-SIZE PLANET IN A MULTIPLE SYSTEM. Astrophysical Journal, 2011, 727, 24.	4.5	215
23	THE MASS OF Kepler-93b AND THE COMPOSITION OF TERRESTRIAL PLANETS. Astrophysical Journal, 2015, 800, 135.	4.5	211
24	An Earth-sized planet with an Earth-like density. Nature, 2013, 503, 377-380.	27.8	199
25	Radius and Structure Models of the First Superâ€Earth Planet. Astrophysical Journal, 2007, 656, 545-551.	4.5	193
26	THE ATMOSPHERIC SIGNATURES OF SUPER-EARTHS: HOW TO DISTINGUISH BETWEEN HYDROGEN-RICH AND HYDROGEN-POOR ATMOSPHERES. Astrophysical Journal, 2009, 690, 1056-1067.	4.5	192
27	The TESS Objects of Interest Catalog from the TESS Prime Mission. Astrophysical Journal, Supplement Series, 2021, 254, 39.	7.7	190
28	A Detailed Model Grid for Solid Planets from 0.1 through 100 Earth Masses. Publications of the Astronomical Society of the Pacific, 2013, 125, 227-239.	3.1	185
29	Two Earth-sized planets orbiting Kepler-20. Nature, 2012, 482, 195-198.	27.8	172
30	KEPLER-18b, c, AND d: A SYSTEM OF THREE PLANETS CONFIRMED BY TRANSIT TIMING VARIATIONS, LIGHT CURVE VALIDATION, WARM-SPITZER PHOTOMETRY, AND RADIAL VELOCITY MEASUREMENTS. Astrophysical Journal, Supplement Series, 2011, 197, 7.	7.7	171
31	A FIRST COMPARISON OF KEPLER PLANET CANDIDATES IN SINGLE AND MULTIPLE SYSTEMS. Astrophysical Journal Letters, 2011, 732, L24.	8.3	167
32	THE KEPLER-10 PLANETARY SYSTEM REVISITED BY HARPS-N: A HOT ROCKY WORLD AND A SOLID NEPTUNE-MASS PLANET. Astrophysical Journal, 2014, 789, 154.	4.5	164
33	An Upper Limit on the Albedo of HD 209458b: Direct Imaging Photometry with theMOSTSatellite. Astrophysical Journal, 2006, 646, 1241-1251.	4.5	151
34	TESS Discovery of a Transiting Super-Earth in the pi Mensae System. Astrophysical Journal Letters, 2018, 868, L39.	8.3	148
35	PREDICTIONS OF THE ATMOSPHERIC COMPOSITION OF GJ 1132b. Astrophysical Journal, 2016, 829, 63.	4.5	130
36	MINIMUM RADII OF SUPER-EARTHS: CONSTRAINTS FROM GIANT IMPACTS. Astrophysical Journal Letters, 2010, 712, L73-L76.	8.3	129

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37	KEPLER-20: A SUN-LIKE STAR WITH THREE SUB-NEPTUNE EXOPLANETS AND TWO EARTH-SIZE CANDIDATES. Astrophysical Journal, 2012, 749, 15.	4.5	125
38	KEPLER-21b: A 1.6R_{Earth}PLANET TRANSITING THE BRIGHT OSCILLATING F SUBGIANT STAR HD 179070. Astrophysical Journal, 2012, 746, 123.	4.5	124
39	HARPS-N OBSERVES THE SUN AS A STAR. Astrophysical Journal Letters, 2015, 814, L21.	8.3	112
40	The origin of life as a planetary phenomenon. Science Advances, 2020, 6, eaax3419.	10.3	111
41	UV-light-driven prebiotic synthesis of ironâ€“sulfur clusters. Nature Chemistry, 2017, 9, 1229-1234.	13.6	110
42	TESS Discovery of an Ultra-short-period Planet around the Nearby M Dwarf LHS 3844. Astrophysical Journal Letters, 2019, 871, L24.	8.3	108
43	Influence of the UV Environment on the Synthesis of Prebiotic Molecules. Astrobiology, 2016, 16, 68-88.	3.0	106
44	UV SURFACE ENVIRONMENT OF EARTH-LIKE PLANETS ORBITING FGKM STARS THROUGH GEOLOGICAL EVOLUTION. Astrophysical Journal, 2015, 806, 137.	4.5	105
45	CHARACTERIZING K2 PLANET DISCOVERIES: A SUPER-EARTH TRANSITING THE BRIGHT K DWARF HIP 116454. Astrophysical Journal, 2015, 800, 59.	4.5	104
46	An Ultra-short Period Rocky Super-Earth with a Secondary Eclipse and a Neptune-like Companion around K2-141. Astronomical Journal, 2018, 155, 107.	4.7	103
47	The Transiting Extrasolar Giant Planet around the Star OGLE-TR-113. Astrophysical Journal, 2004, 609, L37-L40.	4.5	102
48	The Surface UV Environment on Planets Orbiting MÂDwarfs: Implications for Prebiotic Chemistry and the Need for Experimental Follow-up. Astrophysical Journal, 2017, 843, 110.	4.5	100
49	The Occurrence of Rocky Habitable-zone Planets around Solar-like Stars from Kepler Data. Astronomical Journal, 2021, 161, 36.	4.7	96
50	MOST OBSERVATIONS OF OUR NEAREST NEIGHBOR: FLARES ON PROXIMA CENTAURI. Astrophysical Journal Letters, 2016, 829, L31.	8.3	93
51	Threeâ€™s Company: An Additional Non-transiting Super-Earth in the Bright HD 3167 System, and Masses for All Three Planets. Astronomical Journal, 2017, 154, 122.	4.7	90
52	A 1.9 EARTH RADIUS ROCKY PLANET AND THE DISCOVERY OF A NON-TRANSITING PLANET IN THE KEPLER-20 SYSTEM*. Astronomical Journal, 2016, 152, 160.	4.7	85
53	Two massive rocky planets transiting a K-dwarf 6.5â€‰parsecs away. Nature Astronomy, 2017, 1, .	10.1	84
54	MOST DETECTS TRANSITS OF HD 97658b, A WARM, LIKELY VOLATILE-RICH SUPER-EARTH. Astrophysical Journal Letters, 2013, 772, L2.	8.3	83

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55	Photochemical reductive homologation of hydrogen cyanide using sulfite and ferrocyanide. Chemical Communications, 2018, 54, 5566-5569.	4.1	82
56	KEPLER-21b: A ROCKY PLANET AROUND A VÂ=Â8.25 mag STAR*. Astronomical Journal, 2016, 152, 204.	4.7	80
57	THE PERSISTENCE OF OCEANS ON EARTH-LIKE PLANETS: INSIGHTS FROM THE DEEP-WATER CYCLE. Astrophysical Journal, 2015, 801, 40.	4.5	71
58	Precise Masses in the WASP-47 System. Astronomical Journal, 2017, 154, 237.	4.7	66
59	Nitrogen Oxide Concentrations in Natural Waters on Early Earth. Geochemistry, Geophysics, Geosystems, 2019, 20, 2021-2039.	2.5	65
60	Sulfidic Anion Concentrations on Early Earth for Surficial Origins-of-Life Chemistry. Astrobiology, 2018, 18, 1023-1040.	3.0	64
61	A giant impact as the likely origin of different twins in the Kepler-107 exoplanet system. Nature Astronomy, 2019, 3, 416-423.	10.1	64
62	A Pair of TESS Planets Spanning the Radius Valley around the Nearby Mid-M Dwarf LTT 3780. Astronomical Journal, 2020, 160, 3.	4.7	62
63	THE EFFECT OF TEMPERATURE EVOLUTION ON THE INTERIOR STRUCTURE OF H₂O-RICH PLANETS. Astrophysical Journal, 2014, 784, 96.	4.5	58
64	THE ORBIT AND MASS OF THE THIRD PLANET IN THE KEPLER-56 SYSTEM. Astronomical Journal, 2016, 152, 165.	4.7	58
65	The Kepler-19 System: A Thick-envelope Super-Earth with Two Neptune-mass Companions Characterized Using Radial Velocities and Transit Timing Variations. Astronomical Journal, 2017, 153, 224.	4.7	58
66	THE KEPLER-454 SYSTEM: A SMALL, NOT-ROCKY INNER PLANET, A JOVIAN WORLD, AND A DISTANT COMPANION. Astrophysical Journal, 2016, 816, 95.	4.5	55
67	Constraints on the Early Terrestrial Surface UV Environment Relevant to Prebiotic Chemistry. Astrobiology, 2017, 17, 169-204.	3.0	54
68	Operation of a broadband visible-wavelength astro-comb with a high-resolution astrophysical spectrograph. Optica, 2015, 2, 250.	9.3	48
69	Selective prebiotic conversion of pyrimidine and purine anhydronucleosides into Watson-Crick base-pairing arabino-furanosyl nucleosides in water. Nature Communications, 2018, 9, 4073.	12.8	36
70	MOSTSpaceâ€based Photometry of the Transiting Exoplanet System HD 209458: Transit Timing to Search for Additional Planets. Astrophysical Journal, 2008, 682, 586-592.	4.5	35
71	No Conclusive Evidence for Transits of Proxima b in MOST Photometry. Astronomical Journal, 2017, 153, 93.	4.7	34
72	Prebiotic photoredox synthesis from carbon dioxide and sulfite. Nature Chemistry, 2021, 13, 1126-1132.	13.6	34

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73	TOI-1235 b: A Keystone Super-Earth for Testing Radius Valley Emergence Models around Early M Dwarfs. Astronomical Journal, 2020, 160, 22.	4.7	33
74	The role of high-pressure experiments on determining super-Earth properties. Astrophysics and Space Science, 2009, 322, 135-139.	1.4	32
75	Radii and Distances of Cepheids. I. Method and Measurement Errors. Astrophysical Journal, 1997, 479, 875-885.	4.5	27
76	TOI-1634 b: An Ultra-short-period Keystone Planet Sitting inside the M-dwarf Radius Valley. Astronomical Journal, 2021, 162, 79.	4.7	25
77	On the origins of lifeâ€™s homochirality: Inducing enantiomeric excess with spin-polarized electrons. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	25
78	The Abundance of Atmospheric CO₂ in Ocean Exoplanets: a Novel CO₂ Deposition Mechanism. Astrophysical Journal, 2017, 838, 24.	4.5	23
79	An astro-comb calibrated solar telescope to search for the radial velocity signature of Venus. Proceedings of SPIE, 2016, , .	0.8	22
80	UV photostability of three 2-aminoazoles with key roles in prebiotic chemistry on the early earth. Chemical Communications, 2019, 55, 10388-10391.	4.1	22
81	Solvated-electron production using cyanocuprates is compatible with the UV-environment on a Hadeanâ€“Archaean Earth. Chemical Communications, 2018, 54, 1121-1124.	4.1	21
82	Photometric variability of TW Hya from seconds to years as seen from space and the ground during 2013â€“2017. Monthly Notices of the Royal Astronomical Society, 2018, 478, 758-783.	4.4	21
83	Extrasolar planets. Nature, 2008, 451, 29-31.	27.8	20
84	Going over the cliff: MOOC dropout behavior at chapter transition. Distance Education, 2020, 41, 6-25.	3.9	20
85	The impact of student misconceptions on student persistence in a MOOC. Journal of Research in Science Teaching, 2020, 57, 879-910.	3.3	20
86	New Perspectives on the Exoplanet Radius Gap from a Mathematica Tool and Visualized Water Equation of State. Astrophysical Journal, 2021, 923, 247.	4.5	20
87	Identifying Exoplanets with Deep Learning. IV. Removing Stellar Activity Signals from Radial Velocity Measurements Using Neural Networks. Astronomical Journal, 2022, 164, 49.	4.7	20
88	An Accurate Mass Determination for Kepler-1655b, a Moderately Irradiated World with a Significant Volatile Envelope. Astronomical Journal, 2018, 155, 203.	4.7	19
89	Exoplanet Radius Gap Dependence on Host Star Type. Research Notes of the AAS, 2017, 1, 32.	0.7	17
90	UsingMOSTto reveal the secrets of the mischievous Wolf-Rayet binary CV Ser. Monthly Notices of the Royal Astronomical Society, 2012, 426, 1720-1730.	4.4	15

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91	Metal-silicate Partitioning and Its Role in Core Formation and Composition on Super-Earths. Astrophysical Journal, 2017, 835, 234.	4.5	15
92	K2-291b: A Rocky Super-Earth in a 2.2 day Orbit[*] â€. Astronomical Journal, 2019, 157, 116.	4.7	13
93	Survival function analysis of planet size distribution with Gaia Data Release 2 updates. Monthly Notices of the Royal Astronomical Society, 2018, 479, 5567-5576.	4.4	12
94	Shielding from UV Photodamage: Implications for Surficial Origins of Life Chemistry on the Early Earth. ACS Earth and Space Chemistry, 2021, 5, 239-246.	2.7	11
95	Atmospheric Constraints on the Surface UV Environment of Mars at 3.9â€‰Ga Relevant to Prebiotic Chemistry. Astrobiology, 2017, 17, 687-708.	3.0	11
96	Visible-Spanning Flat Supercontinuum for Astronomical Applications. Journal of Lightwave Technology, 2018, 36, 5309-5315.	4.6	10
97	Using HARPS-N to characterize the long-period planets in the PH-2 and Kepler-103 systems. Monthly Notices of the Royal Astronomical Society, 2019, 490, 5103-5121.	4.4	10
98	Astro-comb calibrator and spectrograph characterization using a turn-key laser frequency comb. Journal of Astronomical Telescopes, Instruments, and Systems, 2017, 3, 1.	1.8	9
99	Ultraviolet-Driven Deamination of Cytidine Ribonucleotides Under Planetary Conditions. Astrobiology, 2020, 20, 878-888.	3.0	7
100	UV Transmission in Natural Waters on Prebiotic Earth. Astrobiology, 2021, , .	3.0	7
101	Ribose Alters the Photochemical Properties of the Nucleobase in Thionated Nucleosides. Journal of Physical Chemistry Letters, 2021, 12, 6707-6713.	4.6	5
102	The TESS Mission Target Selection Procedure. Publications of the Astronomical Society of the Pacific, 2021, 133, 095002.	3.1	5
103	A New Desalination Pump Helps Define the pH of Ocean Worlds. Astrophysical Journal, 2018, 857, 65.	4.5	4
104	K2-79b and K2-222b: Mass Measurements of Two Small Exoplanets with Periods beyond 10 days that Overlap with Periodic Magnetic Activity Signals. Astronomical Journal, 2022, 163, 41.	4.7	3
105	How Flat Can a Planetary System Get? I. The Case of TRAPPIST-1. Astrophysical Journal, 2021, 913, 126.	4.5	2
106	DIRECT Distances to Local Group Galaxies. International Astronomical Union Colloquium, 2000, 176, 182-186.	0.1	1
107	Using Local Group galaxies to investigate the influence of blending on Cepheid distances and the cosmological distance scale. International Astronomical Union Colloquium, 2004, 193, 41-45.	0.1	1
108	Evolution from the AGB: Variability. Symposium - International Astronomical Union, 1993, 155, 259-262.	0.1	0

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109	The Centre-of-Mass Velocity of a Radially Pulsating Star: Insights from NLTE Models. International Astronomical Union Colloquium, 1995, 155, 375-376.	0.1	0
110	Pulsating stellar atmospheres. Symposium - International Astronomical Union, 1997, 189, 253-260.	0.1	0
111	A Synoptic Variability Survey of M3. International Astronomical Union Colloquium, 2000, 176, 161-164.	0.1	0
112	Astro-comb: revolutionizing precision spectroscopy in astrophysics. Proceedings of the International Astronomical Union, 2008, 4, 499-501.	0.0	0
113	Partitioning of Atmospheric O₂ into High-pressure Ice in Ocean Worlds. Astrophysical Journal, 2022, 926, 72.	4.5	0