Erdal YiÄit

List of Publications by Year in descending order

74 papers	2,535 citations	218677 26 h-index	197818 49 g-index
92 all docs	92 docs citations	92 times ranked	1480 citing authors

#	Article	IF	Citations
1	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. Icarus, 2018, 315, 146-157.	2.5	216
2	Internal wave coupling processes in Earthâ€™s atmosphere. Advances in Space Research, 2015, 55, 983-1003.	2.6	192
3	Parameterization of the effects of vertically propagating gravity waves for thermosphere general circulation models: Sensitivity study. Journal of Geophysical Research, 2008, 113, .	3.3	157
4	A review of vertical coupling in the Atmosphereâ€“Ionosphere system: Effects of waves, sudden stratospheric warmings, space weather, and of solar activity. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 141, 1-12.	1.6	131
5	Modeling the effects of gravity wave momentum deposition on the general circulation above the turbopause. Journal of Geophysical Research, 2009, 114, .	3.3	119
6	Heating and cooling of the thermosphere by internal gravity waves. Geophysical Research Letters, 2009, 36, .	4.0	98
7	Influence of gravity waves on the Martian atmosphere: General circulation modeling. Journal of Geophysical Research, 2011, 116, .	3.3	89
8	MAVEN NGIMS observations of atmospheric gravity waves in the Martian thermosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 2310-2335.	2.4	88
9	Internal gravity waves in the thermosphere during low and high solar activity: Simulation study. Journal of Geophysical Research, 2010, 115, .	3.3	80
10	Highâ€altitude gravity waves in the Martian thermosphere observed by MAVEN/NGIMS and modeled by a gravity wave scheme. Geophysical Research Letters, 2015, 42, 8993-9000.	4.0	79
11	Thermal effects of internal gravity waves in the Martian upper atmosphere. Geophysical Research Letters, 2012, 39, .	4.0	70
12	Global distribution and parameter dependences of gravity wave activity in the Martian upper thermosphere derived from MAVEN/NGIMS observations. Journal of Geophysical Research: Space Physics, 2017, 122, 2374-2397.	2.4	66
13	Gravity waves in the thermosphere during a sudden stratospheric warming. Geophysical Research Letters, 2012, 39, .	4.0	52
14	Cooling of the Martian thermosphere by CO₂radiation and gravity waves: An intercomparison study with two general circulation models. Journal of Geophysical Research E: Planets, 2015, 120, 913-927.	3.6	51
15	Dynamical effects of internal gravity waves in the equinoctial thermosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 90-91, 104-116.	1.6	49
16	General circulation modeling of the Martian upper atmosphere during global dust storms. Journal of Geophysical Research E: Planets, 2013, 118, 2234-2246.	3.6	49
17	Influence of parameterized smallâ€scale gravity waves on the migrating diurnal tide in Earth's thermosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 4846-4864.	2.4	49
18	Estimates of gravity wave drag on Mars: Indication of a possible lower thermospheric wind reversal. Icarus, 2011, 211, 909-912.	2.5	48

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19	Simultaneous observations of atmospheric tides from combined in situ and remote observations at Mars from the MAVEN spacecraft. Journal of Geophysical Research E: Planets, 2016, 121, 594-607.	3.6	48
20	Simulated variability of the highâ€latitude thermosphere induced by smallâ€scale gravity waves during a sudden stratospheric warming. Journal of Geophysical Research: Space Physics, 2014, 119, 357-365.	2.4	44
21	Gravity Waves in Planetary Atmospheres: Their Effects and Parameterization in Global Circulation Models. Atmosphere, 2019, 10, 531.	2.3	41
22	GPSâ€TEC Observation of Gravity Waves Generated in the Ionosphere During 21 August 2017 Total Solar Eclipse. Journal of Geophysical Research: Space Physics, 2018, 123, 725-738.	2.4	40
23	Gravity waves and highâ€altitude CO₂ ice cloud formation in the Martian atmosphere. Geophysical Research Letters, 2015, 42, 4294-4300.	4.0	39
24	Role of gravity waves in vertical coupling during sudden stratospheric warmings. Geoscience Letters, 2016, 3, .	3.3	36
25	Comparison of the Martian thermospheric density and temperature from IUVS/MAVEN data and general circulation modeling. Geophysical Research Letters, 2016, 43, 3095-3104.	4.0	34
26	Dust Stormâ€Enhanced Gravity Wave Activity in the Martian Thermosphere Observed by MAVEN and Implication for Atmospheric Escape. Geophysical Research Letters, 2021, 48, e2020GL092095.	4.0	33
27	Gravity Wave Activity in the Atmosphere of Mars During the 2018 Global Dust Storm: Simulations With a Highâ€Resolution Model. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006556.	3.6	27
28	Atomic Oxygen Retrieved From the SABER 2.0â€•and 1.6â€Î¼m Radiances Using New Firstâ€Principles Nighttime OH(v) Model. Geophysical Research Letters, 2018, 45, 5798-5803.	4.0	25
29	A global view of gravity waves in the Martian atmosphere inferred from a highâ€resolution general circulation model. Geophysical Research Letters, 2015, 42, 9213-9222.	4.0	24
30	Quiet-time low latitude ionospheric electrodynamics in the non-hydrostatic Global Ionosphereâ€“Thermosphere Model. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 80, 161-172.	1.6	22
31	Influence of gravity waves on the climatology of high-altitude Martian carbon dioxide ice clouds. Annales Geophysicae, 2018, 36, 1631-1646.	1.6	22
32	Gravity Wave Activity in the Martian Atmosphere at Altitudes 20â€“160Âkm From ACS/TGO Occultation Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006899.	3.6	22
33	Ionosonde-based indices for improved representation of solar cycle variation in the International Reference Ionosphere model. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 171, 137-146.	1.6	21
34	Annual Cycle of Gravity Wave Activity Derived From a Highâ€Resolution Martian General Circulation Model. Journal of Geophysical Research E: Planets, 2019, 124, 1618-1632.	3.6	21
35	Global Distribution of Gravity Wave Sources and Fields in the Martian Atmosphere during Equinox and Solstice Inferred from a High-Resolution General Circulation Model. Journals of the Atmospheric Sciences, 2016, 73, 4895-4909.	1.7	20
36	Obscure waves in planetary atmospheres. Physics Today, 2019, 72, 40-46.	0.3	20

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37	Global circulation of Marsâ€™ upper atmosphere. Science, 2019, 366, 1363-1366.	12.6	20
38	Resolving the mesospheric nighttime 4.3â€‰Âµm emission puzzle: comparison of the CO₂(<i>Î½</i>₃) and OH(<i>Î½</i>) emission models. Atmospheric Chemistry and Physics, 2017, 17, 9751-9760.	4.9	19
39	Effects of high-latitude thermosphere heating at various scale sizes simulated by a nonhydrostatic global thermosphereâ€“ionosphere model. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 592-600.	1.6	17
40	Importance of capturing heliospheric variability for studies of thermospheric vertical winds. Journal of Geophysical Research, 2012, 117, .	3.3	16
41	Variation of Smallâ€Scale Gravity Wave Activity in the Ionosphere During the Major Sudden Stratospheric Warming Event of 2009. Journal of Geophysical Research: Space Physics, 2019, 124, 470-488.	2.4	16
42	Density Fluctuations in the Lower Thermosphere of Mars Retrieved From the ExoMars Trace Gas Orbiter (TGO) Aerobraking. Atmosphere, 2019, 10, 620.	2.3	16
43	Impact of gravity wave drag on the thermospheric circulation: implementation of a nonlinear gravity wave parameterization in a whole-atmosphere model. Annales Geophysicae, 2019, 37, 955-969.	1.6	14
44	Effects of Latitude-Dependent Gravity Wave Source Variations on the Middle and Upper Atmosphere. Frontiers in Astronomy and Space Sciences, 2021, 7, .	2.8	14
45	Role Of the Sun and the Middle atmosphere/thermosphere/ionosphere In Climate (ROSMIC): a retrospective and prospective view. Progress in Earth and Planetary Science, 2021, 8, .	3.0	13
46	Hemispheric differences in the response of the upper atmosphere to the August 2011 geomagnetic storm: A simulation study. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 141, 13-26.	1.6	12
47	Role of variability in determining the vertical wind speeds and structure. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	11
48	Introduction to Plasma. SpringerBriefs in Earth Sciences, 2018, , 1-19.	0.5	11
49	Ionospheric high frequency wave propagation using different IRI hmF2 and foF2 models. Journal of Atmospheric and Solar-Terrestrial Physics, 2019, 196, 105141.	1.6	10
50	General circulation modeling of the Martian upper atmosphere during global dust storms. Journal of Geophysical Research E: Planets, 2013, 118, n/a-n/a.	3.6	10
51	Martian Dust Storms and Gravity Waves: Disentangling Water Transport to the Upper Atmosphere. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	10
52	Earthâ€™s magnetic field effect on MUF calculation and consequences for hmF2 trend estimates. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 163, 114-119.	1.6	9
53	Extending the Parameterization of Gravity Waves into the Thermosphere and Modeling Their Effects. Springer Atmospheric Sciences, 2013, , 467-480.	0.3	9
54	Modelled effect of changes in the CO2 concentration on the middle and upper atmosphere: Sensitivity to gravity wave parameterization. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1484-1496.	1.6	8

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55	Ion Friction and Quantification of the Geomagnetic Influence on Gravity Wave Propagation and Dissipation in the Thermosphereâ€Ionosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 2016.	2.4	8
56	Critical frequencies of the ionospheric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mi>F</mml:mi><mml:mn>1</mml:mn></mml:msub></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mi>F</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> layers during the last four solar cycles: Sunspot group type dependencies. Journal of Atmospheric	1.6	8
57	Variability of Gravity Wave Effects on the Zonal Mean Circulation and Migrating Terdiurnal Tide as Studied With the Middle and Upper Atmosphere Model (MUAM2019) Using a Nonlinear Gravity Wave Scheme. Frontiers in Astronomy and Space Sciences, 2020, 7, .	2.8	8
58	Variations of the Martian Thermospheric Gravity-wave Activity during the Recent Solar Minimum as Observed by MAVEN. Astrophysical Journal, 2021, 920, 69.	4.5	8
59	Martian water escape and internal waves. Science, 2021, 374, 1323-1324.	12.6	7
60	Atmospheric and Space Sciences: Neutral Atmospheres. SpringerBriefs in Earth Sciences, 2015, , .	0.5	6
61	Atmospheric and Space Sciences: Ionospheres and Plasma Environments. SpringerBriefs in Earth Sciences, 2018, , .	0.5	6
62	High frequency sky wave propagation during geomagnetic field reversals. Studia Geophysica Et Geodaetica, 2020, 64, 130-142.	0.5	3
63	Earthâ€™s Atmosphere and Geospace Environment. SpringerBriefs in Earth Sciences, 2015, , 41-51.	0.5	2
64	Signature of a possible relationship between the maximum CME speed index and the critical frequencies of the F1 and F2 ionospheric layers: Data analysis for a mid-latitude ionospheric station during the solar cycles 23 and 24. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 171, 131-136.	1.6	2
65	Planetary Ionospheres. SpringerBriefs in Earth Sciences, 2018, , 67-102.	0.5	2
66	Comparative Study of Equatorial and High-Latitude Over-The-Horizon Radar Parameters Using Ray-Tracing Simulations. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 53-57.	3.1	2
67	A Brief Overview of Gravity Wave Retrieval Techniques From Observations. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	2
68	Dynamics of the Atmosphere-Ionosphere System. SpringerBriefs in Earth Sciences, 2018, , 103-133.	0.5	1
69	Atmospheric Circulation and Dynamical Processes. SpringerBriefs in Earth Sciences, 2015, , 81-99.	0.5	1
70	Transport Processes in Plasma. SpringerBriefs in Earth Sciences, 2018, , 41-66.	0.5	1
71	Meteorology, Dynamic (Stratosphere). , 2018, , .		0
72	Waves in Terrestrial and Planetary Atmospheres. SpringerBriefs in Earth Sciences, 2015, , 53-79.	0.5	0

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73	Basic Electromagnetic Theory. SpringerBriefs in Earth Sciences, 2018, , 21-40.	0.5	0
74	Editorial: Coupling Processes in Terrestrial and Planetary Atmospheres. Frontiers in Astronomy and Space Sciences, 2022, 9, .	2.8	0