Hye-Yeong Chun

List of Publications by Year
in descending order

94 papers	2,146 citations	201385 27 h-index	288905 40 g-index
102 all docs	102 docs citations	102 times ranked	1169 citing authors

#	Article	IF	Citations
1	Momentum Flux by Thermally Induced Internal Gravity Waves and Its Approximation for Large-Scale Models. Journals of the Atmospheric Sciences, 1998, 55, 3299-3310.	0.6	118
2	Generation Mechanisms of Convectively Forced Internal Gravity Waves and Their Propagation to the Stratosphere. Journals of the Atmospheric Sciences, 2003, 60, 1960-1980.	0.6	93
3	Momentum Flux Spectrum of Convectively Forced Internal Gravity Waves and Its Application to Gravity Wave Drag Parameterization. Part I: Theory. Journals of the Atmospheric Sciences, 2005, 62, 107-124.	0.6	86
4	Overview of experiment design and comparison of models participating in phase 1 of the SPARC Quasi-Biennial Oscillation initiative (QBOi). Geoscientific Model Development, 2018, 11, 1009-1032.	1.3	81
5	Statistics and Possible Sources of Aviation Turbulence over South Korea. Journal of Applied Meteorology and Climatology, 2011, 50, 311-324.	0.6	68
6	A study on stratospheric gravity waves generated by Typhoon Ewiniar: Numerical simulations and satellite observations. Journal of Geophysical Research, 2009, 114, .	3.3	65
7	A Lagrangian Spectral Parameterization of Gravity Wave Drag Induced by Cumulus Convection. Journals of the Atmospheric Sciences, 2008, 65, 1204-1224.	0.6	55
8	Momentum Flux Spectrum of Convective Gravity Waves. Part I: An Update of a Parameterization Using Mesoscale Simulations. Journals of the Atmospheric Sciences, 2011, 68, 739-759.	0.6	55
9	A Numerical Study of Clear-Air Turbulence (CAT) Encounters over South Korea on 2 April 2007. Journal of Applied Meteorology and Climatology, 2010, 49, 2381-2403.	0.6	52
10	A numerical study of gravity waves induced by convection associated with Typhoon Rusa. Geophysical Research Letters, 2005, 32, .	1.5	51
11	Evaluations of Upper-Level Turbulence Diagnostics Performance Using the Graphical Turbulence Guidance (GTG) System and Pilot Reports (PIREPs) over East Asia. Journal of Applied Meteorology and Climatology, 2011, 50, 1936-1951.	0.6	43
12	Momentum Flux Spectrum of Convectively Forced Internal Gravity Waves and Its Application to Gravity Wave Drag Parameterization. Part II: Impacts in a GCM (WACCM). Journals of the Atmospheric Sciences, 2007, 64, 2286-2308.	0.6	42
13	Impacts of introducing a convective gravityâ€wave parameterization upon the QBO in the Met Office Unified Model. Geophysical Research Letters, 2013, 40, 1873-1877.	1.5	41
14	Effects of Diabatic Cooling in a Shear Flow with a Critical Level. Journals of the Atmospheric Sciences, 1991, 48, 2476-2491.	0.6	40
15	Effects of Gravity Wave Drag Induced by Cumulus Convection on the Atmospheric General Circulation. Journals of the Atmospheric Sciences, 2001, 58, 302-319.	0.6	39
16	Consistency between Fourier transform and small-volume few-wave decomposition for spectral and spatial variability of gravity waves above a typhoon. Atmospheric Measurement Techniques, 2012, 5, 1637-1651.	1.2	39
17	Contributions of equatorial wave modes and parameterized gravity waves to the tropical QBO in HadGEM2. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1065-1090.	1.2	39
18	An Updated Parameterization of Convectively Forced Gravity Wave Drag for Use in Large-Scale Models. Journals of the Atmospheric Sciences, 2002, 59, 1006-1017.	0.6	38

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19	Secondary waves generated by breaking of convective gravity waves in the mesosphere and their influence in the wave momentum flux. Journal of Geophysical Research, 2008, 113, .	3.3	38
20	A Numerical Simulation of Convectively Induced Turbulence above Deep Convection. Journal of Applied Meteorology and Climatology, 2012, 51, 1180-1200.	0.6	38
21	Impact of a Convectively Forced Gravity Wave Drag Parameterization in NCAR CCM3. Journal of Climate, 2004, 17, 3530-3547.	1.2	37
22	A comprehensive observational filter for satellite infrared limb sounding of gravity waves. Atmospheric Measurement Techniques, 2015, 8, 1491-1517.	1.2	36
23	Momentum forcing of the quasi-biennial oscillation by equatorial waves in recent reanalyses. Atmospheric Chemistry and Physics, 2015, 15, 6577-6587.	1.9	34
24	Tuning of a convective gravity wave source scheme based on HIRDLS observations. Atmospheric Chemistry and Physics, 2016, 16, 7335-7356.	1.9	33
25	Comparison of gravity wave temperature variances from rayâ€based spectral parameterization of convective gravity wave drag with AIRS observations. Journal of Geophysical Research, 2012, 117, .	3.3	32
26	Momentum Flux of Convective Gravity Waves Derived from an Offline Gravity Wave Parameterization. Part I: Spatiotemporal Variations at Source Level. Journals of the Atmospheric Sciences, 2017, 74, 3167-3189.	0.6	31
27	Gravity wave temperature variance calculated using the rayâ€based spectral parameterization of convective gravity waves and its comparison with Microwave Limb Sounder observations. Journal of Geophysical Research, 2009, 114, .	3.3	30
28	Stratospheric Gravity Waves Generated by Typhoon Saomai (2006): Numerical Modeling in a Moving Frame Following the Typhoon. Journals of the Atmospheric Sciences, 2010, 67, 3617-3636.	0.6	29
29	An evaluation of tropical waves and wave forcing of the QBO in the QBOi models. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 1541-1567.	1.0	29
30	Effects of Convective Gravity Wave Drag in the Southern Hemisphere Winter Stratosphere. Journals of the Atmospheric Sciences, 2013, 70, 2120-2136.	0.6	27
31	Sensitivity of typhoonâ€induced gravity waves to cumulus parameterizations. Geophysical Research Letters, 2007, 34, .	1.5	25
32	Effects of Nonlinearity on Convectively Forced Internal Gravity Waves: Application to a Gravity Wave Drag Parameterization. Journals of the Atmospheric Sciences, 2008, 65, 557-575.	0.6	25
33	Influence of Gravity Waves in the Tropical Upwelling: WACCM Simulations. Journals of the Atmospheric Sciences, 2011, 68, 2599-2612.	0.6	23
34	Characteristics of Atmospheric Turbulence Retrieved From High Verticalâ€Resolution Radiosonde Data in the United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7553-7579.	1.2	23
35	Characteristics of inertioâ€gravity waves revealed in rawinsonde data observed in Korea during 20 August to 5 September 2002. Journal of Geophysical Research, 2007, 112, .	3.3	21
36	Momentum Flux of Convective Gravity Waves Derived from an Offline Gravity Wave Parameterization. Part II: Impacts on the Quasi-Biennial Oscillation. Journals of the Atmospheric Sciences, 2018, 75, 3753-3775.	0.6	21

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37	Role of equatorial waves and convective gravity waves in the 2015/16Âquasi-biennial oscillation disruption. Atmospheric Chemistry and Physics, 2020, 20, 14669-14693.	1.9	19
38	Seasonal Variations of Mesospheric Gravity Waves Observed with an Airglow All-sky Camera at Mt. Bohyun, Korea (36Â° N). Journal of Astronomy and Space Sciences, 2010, 27, 181-188.	0.3	18
39	Characteristics of Binary Tropical Cyclones Observed in the Western North Pacific for 62 Years (1951â€“2012). Monthly Weather Review, 2015, 143, 1749-1761.	0.5	17
40	Aviation turbulence encounters detected from aircraft observations: spatiotemporal characteristics and application to Korean Aviation Turbulence Guidance. Meteorological Applications, 2016, 23, 594-604.	0.9	17
41	Transient, Linear Dynamics of a Stably Stratified Shear Flow with Thermal Forcing and a Critical Level. Journals of the Atmospheric Sciences, 1999, 56, 483-499.	0.6	16
42	Characteristics and Momentum Flux Spectrum of Convectively Forced Internal Gravity Waves in Ensemble Numerical Simulations. Journals of the Atmospheric Sciences, 2007, 64, 3723-3734.	0.6	16
43	Seasonal, annual and inter-annual features of turbulence parameters over the tropical station Pune (18Â°32' N, 73Â°51' E) observed with UHF wind profiler. Annales Geophysicae, 2008, 26, 3677-3692.	0.6	16
44	Impact of typhoon-generated gravity waves in the typhoon development. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	16
45	Contributions of equatorial waves and small-scale convective gravity waves to the 2019/20 quasi-biennial oscillation (QBO) disruption. Atmospheric Chemistry and Physics, 2021, 21, 9839-9857.	1.9	16
46	Comparison of simulated and observed convective gravity waves. Journal of Geophysical Research D: Atmospheres, 2016, 121, 13,474.	1.2	15
47	Comparison of Turbulence Indicators Obtained from In Situ Flight Data. Journal of Applied Meteorology and Climatology, 2017, 56, 1609-1623.	0.6	15
48	Seasonal variations of gravity waves revealed in rawinsonde data at Pohang, Korea. Meteorology and Atmospheric Physics, 2006, 93, 255-273.	0.9	14
49	Sea surface temperature as a proxy for convective gravity wave excitation: a study based on global gravity wave observations in the middle atmosphere. Annales Geophysicae, 2014, 32, 1373-1394.	0.6	14
50	Horizontal divergence of typhoon-generated gravity waves in the upper troposphere and lower stratosphere (UTLS) and its influence on typhoon evolution. Atmospheric Chemistry and Physics, 2014, 14, 3175-3182.	1.9	14
51	Inertiaâ€Gravity Waves Revealed in Radiosonde Data at Jang Bogo Station, Antarctica (74Â°37â€²S, 164Â°13â€²E): 1. Characteristics, Energy, and Momentum Flux. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,305.	1.2	14
52	Characteristics of gravity waves generated in the jet-front system in aÂbaroclinic instability simulation. Atmospheric Chemistry and Physics, 2016, 16, 4799-4815.	1.9	13
53	Effects of Non-orographic Gravity Wave Drag on Seasonal and Medium-range Predictions in a Global Forecast Model. Asia-Pacific Journal of Atmospheric Sciences, 2018, 54, 385-402.	1.3	13
54	Retrieval of eddy dissipation rate from derived equivalent vertical gust included in Aircraft Meteorological Data Relay (AMDAR). Atmospheric Measurement Techniques, 2020, 13, 1373-1385.	1.2	13

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55	Gravity wave reflection and its influence on the consistency of temperature- and wind-based momentum fluxes simulated above Typhoon Ewiniar. Atmospheric Chemistry and Physics, 2012, 12, 10787-10795.	1.9	12
56	Meteor radar observations of vertically propagating lowâ€frequency inertiaâ€gravity waves near the southern polar mesopause region. Journal of Geophysical Research: Space Physics, 2017, 122, 4777-4800.	0.8	12
57	Research Collaborations for Better Predictions of Aviation Weather Hazards. Bulletin of the American Meteorological Society, 2017, 98, ES103-ES107.	1.7	12
58	A Numerical Study of Aviation Turbulence Encountered on 13 February 2013 over the Yellow Sea between China and the Korean Peninsula. Journal of Applied Meteorology and Climatology, 2018, 57, 1043-1060.	0.6	12
59	The equatorial stratospheric semiannual oscillation and timeâ€mean winds in QBOi models. Quarterly Journal of the Royal Meteorological Society, 2022, 148, 1593-1609.	1.0	12
60	Role of Gravity Waves in a Vortex-Split Sudden Stratospheric Warming in January 2009. Journals of the Atmospheric Sciences, 2020, 77, 3321-3342.	0.6	12
61	Latitudinal Variations of the Convective Source and Propagation Condition of Inertio-Gravity Waves in the Tropics. Journals of the Atmospheric Sciences, 2007, 64, 1603-1618.	0.6	11
62	Inertia gravity waves associated with deep convection observed during the summers of 2005 and 2007 in Korea. Journal of Geophysical Research, 2011, 116, .	3.3	11
63	Development of Near-Cloud Turbulence Diagnostics Based on a Convective Gravity Wave Drag Parameterization. Journal of Applied Meteorology and Climatology, 2019, 58, 1725-1750.	0.6	11
64	Activities of Smallâ€Scale Gravity Waves in the Upper Mesosphere Observed From Meteor Radar at King Sejong Station, Antarctica (62.22Â°S, 58.78Â°W) and Their Potential Sources. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034528.	1.2	11
65	A numerical study on severe downslope windstorms occurred on 5 April 2005 at Gangneung and Yangyang, Korea. Asia-Pacific Journal of Atmospheric Sciences, 2010, 46, 155-172.	1.3	10
66	Characteristics and sources of inertia-gravity waves revealed in the KEOP-2007 radiosonde data. Asia-Pacific Journal of Atmospheric Sciences, 2010, 46, 261-277.	1.3	10
67	The Effects of Topography on the Evolution of Typhoon Saomai (2006) under the Influence of Tropical Storm Bopha (2006). Monthly Weather Review, 2013, 141, 468-489.	0.5	10
68	Differences in the Tropical Convective Activities at the Opposite Phases of the Quasi-Biennial Oscillation. Asia-Pacific Journal of Atmospheric Sciences, 2019, 55, 317-336.	1.3	10
69	Inertiaâ€Gravity Waves Revealed in Radiosonde Data at Jang Bogo Station, Antarctica (74Â°37â€²S, 164Â°13â€²E): 2. Potential Sources and Their Relation to Inertiaâ€Gravity Waves. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032260.	1.2	10
70	Development of the Korean Aviation Turbulence Guidance (KTG) System using the Operational Unified Model (UM) of the Korea Meteorological Administration (KMA) and Pilot Reports (PIREPs). Journal of the Korean Society for Aviation and Aeronautics, 2012, 20, 76-83.	0.3	10
71	Potential sources of atmospheric turbulence estimated using the Thorpe method and operational radiosonde data in the United States. Atmospheric Research, 2022, 265, 105891.	1.8	10
72	Generation mechanisms of convectively induced internal gravity waves in a three-dimensional framework. Asia-Pacific Journal of Atmospheric Sciences, 2014, 50, 163-177.	1.3	8

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73	Impact of climate variabilities on trans-oceanic flight times and emissions during strong NAO and ENSO phases. Environmental Research Letters, 2020, 15, 105017.	2.2	8
74	Evaluation of Multimodel-Based Ensemble Forecasts for Clear-Air Turbulence. Weather and Forecasting, 2019, 35, 507-521.	0.5	7
75	Development of the Korean Peninsula-Korean Aviation Turbulence Guidance (KP-KTG) System Using the Local Data Assimilation and Prediction System (LDAPS) of the Korea Meteorological Administration (KMA). Atmosphere, 2015, 25, 367-374.	0.3	7
76	Propagation of gravity waves and its effects on pseudomomentum flux in a sudden stratospheric warming event. Atmospheric Chemistry and Physics, 2020, 20, 7617-7644.	1.9	7
77	Characteristics of the derived energy dissipation rate using the 1â€‰Hz commercial aircraft quick access recorder (QAR) data. Atmospheric Measurement Techniques, 2022, 15, 2277-2298.	1.2	7
78	Impacts on the TRMM data due to orbit boost in the spectral domain. Geophysical Research Letters, 2008, 35, .	1.5	6
79	Momentum flux of stratospheric gravity waves generated by Typhoon Ewiniar(2006). Asia-Pacific Journal of Atmospheric Sciences, 2010, 46, 199-208.	1.3	6
80	A Statistical Analysis of Aviation Turbulence Observed in Pilot Report (PIREP) over East Asia Including South Korea. Atmosphere, 2015, 25, 129-140.	0.3	6
81	Classification of Synoptic Patterns With Mesoscale Mechanisms for Downslope Windstorms in Korea Using a Selfâ€Organizing Map. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	6
82	Effects of thermodynamic profiles on the interaction of binary tropical cyclones. Journal of Geophysical Research D: Atmospheres, 2015, 120, 9173-9192.	1.2	5
83	Gravity Waves Associated with Jet/Front Systems. Part I: Diagnostics and their Correlations with GWs Revealed in High-Resolution Global Analysis Data. Asia-Pacific Journal of Atmospheric Sciences, 2019, 55, 589-608.	1.3	5
84	A numerical simulation of a strong windstorm event in the Taebaek Mountain Region in Korea during the ICE-POP 2018. Atmospheric Research, 2022, 272, 106158.	1.8	5
85	A computationally efficient nonstationary convective gravity-wave drag parameterization for global atmospheric prediction systems. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	4
86	Dynamic Initialization for Whole Atmospheric Global Modeling. Journal of Advances in Modeling Earth Systems, 2018, 10, 2096-2120.	1.3	4
87	Development and Evaluation of Global Korean Aviation Turbulence Forecast Systems Based on an Operational Numerical Weather Prediction Model and In Situ Flight Turbulence Observation Data. Weather and Forecasting, 2022, , .	0.5	4
88	Changes in the Brewer-Dobson circulation for 1980â€“2009 revealed in MERRA reanalysis data. Asia-Pacific Journal of Atmospheric Sciences, 2014, 50, 625-644.	1.3	3
89	AIRS Satellite Observations of Gravity Waves During the 2009 Sudden Stratospheric Warming Event. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034073.	1.2	3
90	Improving Numerical Weather Predictionâ€“Based Near-Cloud Aviation Turbulence Forecasts by Diagnosing Convective Gravity Wave Breaking. Weather and Forecasting, 2021, 36, 1735-1757.	0.5	3

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91	Impact of Convective Gravity Waves on the Tropical Middle Atmosphere During the Maddenâ€Julian Oscillation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 8975-8992.	1.2	1
92	Contributions of Convective and Orographic Gravity Waves to the Brewerâ€"Dobson Circulation Estimated from NCEP CFSR. Journals of the Atmospheric Sciences, 2020, 77, 981-1000.	0.6	1
93	Theoretical investigation of nonhydrostatic effects on convectively forced flows: Propagating and evanescent gravity-wave modes. Physics of Fluids, 2018, 30, 126604.	1.6	0
94	A Numerical Study on Clear-Air Turbulence Events Occurred over South Korea. Atmosphere, 2012, 22, 321-330.	0.3	0