Geraint Vaughan

List of Publications by Year
in descending order

107 papers	3,925 citations	126907 33 h-index	149698 56 g-index
121 all docs	121 docs citations	121 times ranked	3754 citing authors

#	Article	IF	Citations
1	The VAMOS Ocean-Cloud-Atmosphere-Land Study Regional Experiment (VOCALS-REx): goals, platforms, and field operations. Atmospheric Chemistry and Physics, 2011, 11, 627-654.	4.9	272
2	Long-range transport of Saharan dust to northern Europe: The 11-16 October 2001 outbreak observed with EARLINET. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	229
3	The Tropical Warm Pool International Cloud Experiment. Bulletin of the American Meteorological Society, 2008, 89, 629-646.	3.3	173
4	A comparison of ozone and thermal tropopause heights and the impact of tropopause definition on quantifying the ozone content of the troposphere. Quarterly Journal of the Royal Meteorological Society, 1996, 122, 929-944.	2.7	164
5	The potential for stratosphere-troposphere exchange in cut-off-low systems. Quarterly Journal of the Royal Meteorological Society, 1993, 119, 343-365.	2.7	130
6	The Convective Storm Initiation Project. Bulletin of the American Meteorological Society, 2007, 88, 1939-1956.	3.3	110
7	The North Atlantic Waveguide and Downstream Impact Experiment. Bulletin of the American Meteorological Society, 2018, 99, 1607-1637.	3.3	105
8	On the relation between total ozone and meteorology. Quarterly Journal of the Royal Meteorological Society, 1991, 117, 1281-1298.	2.7	101
9	SCOUT-O3/ACTIVE: High-altitude Aircraft Measurements around Deep Tropical Convection. Bulletin of the American Meteorological Society, 2008, 89, 647-662.	3.3	99
10	Humidity measurements in the free troposphere using Raman backscatter. Quarterly Journal of the Royal Meteorological Society, 1988, 114, 1471-1484.	2.7	86
11	Chemical air mass differences near fronts. Journal of Geophysical Research, 1998, 103, 13413-13434.	3.3	83
12	Transport into the troposphere in a tropopause fold. Quarterly Journal of the Royal Meteorological Society, 1994, 120, 1085-1103.	2.7	79
13	Distribution of ozone laminae during EASOE and the possible influence of inertia-gravity waves. Geophysical Research Letters, 1994, 21, 1479-1482.	4.0	74
14	Vertical profiles of tropospheric gases: Chemical consequences of stratospheric intrusions. Atmospheric Environment, 1984, 18, 1759-1766.	1.0	66
15	Title is missing!. Journal of Atmospheric Chemistry, 1998, 29, 55-83.	3.2	66
16	The North Atlantic Marine Boundary Layer Experiment(NAMBLEX). Overview of the campaign held at Mace Head, Ireland, in summer 2002. Atmospheric Chemistry and Physics, 2006, 6, 2241-2272.	4.9	65
17	Transport of near-tropopause air into the lower midlatitude stratosphere. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 1559-1578.	2.7	64
18	Persistence of stratospheric ozone layers in the troposphere. Atmospheric Environment, 2000, 34, 2563-2570.	4.1	61

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19	Atmospheric measurements of peroxyacetylnitrate (PAN) in rural, south-east England: Seasonal variations winter photochemistry and long-range transport. Atmospheric Environment, 1984, 18, 2691-2702.	1.0	57
20	Observation of gravity wave generation and breaking in the lowermost stratosphere. Journal of Geophysical Research, 2001, 106, 5173-5179.	3.3	57
21	Occluded Fronts and the Occlusion Process: A Fresh Look at Conventional Wisdom. Bulletin of the American Meteorological Society, 2011, 92, 443-466.	3.3	51
22	The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. Bulletin of the American Meteorological Society, 2017, 98, 106-128.	3.3	50
23	Occurrence of ozone laminae near the boundary of the stratospheric polar vortex. Journal of Geophysical Research, 1993, 98, 8883-8890.	3.3	49
24	Aerosol and traceâ€gas measurements in the Darwin area during the wet season. Journal of Geophysical Research, 2008, 113, .	3.3	49
25	The vertical distribution of aerosol over Europeâ€”synthesis of one year of EARLINET aerosol lidar measurements and aerosol transport modeling with LMDzT-INCA. Atmospheric Environment, 2005, 39, 2933-2943.	4.1	47
26	Analysis of an ex-tropical cyclone after its reintensification as a warm-core extratropical cyclone. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 2329-2356.	2.7	46
27	An intercomparison of ground-based UV-visible sensors of ozone and NO2. Journal of Geophysical Research, 1997, 102, 1411-1422.	3.3	43
28	Seasonal, interannual and short-term variability of planetary waves in Met Office stratospheric assimilated fields. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 2445-2458.	2.7	43
29	Convective mixing in a tropopause fold. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 1195-1212.	2.7	42
30	Accuracy of ozonesonde measurements in the troposphere. Journal of Atmospheric Chemistry, 1996, 25, 215-226.	3.2	40
31	Diurnal variation of mesospheric ozone. Nature, 1982, 296, 133-135.	27.8	39
32	Air mass modification over Europe: EARLINET aerosol observations from Wales to Belarus. Journal of Geophysical Research, 2004, 109, .	3.3	38
33	A Midlatitude Climatology and Interannual Variability of 200- and 500-hPa Cut-Off Lows. Journal of Climate, 2020, 33, 2201-2222.	3.2	38
34	Upper stratospheric and mesospheric temperatures derived from lidar observations at Aberystwyth. Journal of Atmospheric and Solar-Terrestrial Physics, 1987, 49, 287-298.	0.9	35
35	FIELD RESEARCH: Characterizing Oceanic Convective Cloud Systems. Bulletin of the American Meteorological Society, 2008, 89, 153-155.	3.3	34
36	Modulation of tropical convection by breaking Rossby waves. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 125-137.	2.7	34

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37	Detection of turbulence around jet streams using a VHF radar. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 447-462.	2.7	33
38	Boundary layer structure and decoupling from synoptic scale flow during NAMBLEX. Atmospheric Chemistry and Physics, 2006, 6, 433-445.	4.9	33
39	Using passive remote sensing to retrieve the vertical variation of cloud droplet size in marine stratocumulus: An assessment of information content and the potential for improved retrievals from hyperspectral measurements. Journal of Geophysical Research, 2012, 117, .	3.3	33
40	Cloud Banding and Winds in Intense European Cyclones: Results from the DIAMET Project. Bulletin of the American Meteorological Society, 2015, 96, 249-265.	3.3	32
41	Combined characterisation of GOME and TOMS total ozone measurements from space using ground-based observations from the NDSC. Advances in Space Research, 2000, 26, 1931-1940.	2.6	31
42	Observations of an atmospheric chemical equator and its implications for the tropical warm pool region. Journal of Geophysical Research, 2008, 113, .	3.3	31
43	Inertia-gravity waves observed by the UK MST radar. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 179-188.	2.7	29
44	A climatology of mid-tropospheric mesoscale strong wind events as observed by the MST radar, Aberystwyth. Meteorological Applications, 2010, 17, 340-354.	2.1	29
45	Observations and modelling of microphysical variability, aggregation and sedimentation in tropical anvil cirrus outflow regions. Atmospheric Chemistry and Physics, 2012, 12, 6609-6628.	4.9	29
46	Transport of Canadian forest fire smoke over the UK as observed by lidar. Atmospheric Chemistry and Physics, 2018, 18, 11375-11388.	4.9	29
47	Chemical ozone loss in the Arctic winter 2002/2003 determined with Match. Atmospheric Chemistry and Physics, 2006, 6, 2783-2792.	4.9	28
48	Wind profiler observations of a sting jet. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 663-680.	2.7	28
49	Snowbands over the English Channel and Irish Sea during coldâ€air outbreaks. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 1747-1761.	2.7	28
50	Exploring the Diabatic Role of Ice Microphysical Processes in Two North Atlantic Summer Cyclones. Monthly Weather Review, 2016, 144, 1249-1272.	1.4	28
51	Accuracy of measurements of total ozone by a SAOZ ground-based zenith sky visible spectrometer. Journal of Geophysical Research, 1997, 102, 1379-1390.	3.3	27
52	Vortex-averaged Arctic ozone depletion in the winter 2002/2003. Atmospheric Chemistry and Physics, 2005, 5, 131-138.	4.9	27
53	A Five-Year Radar-Based Climatology of Tropopause Folds and Deep Convection over Wales, United Kingdom. Monthly Weather Review, 2013, 141, 1693-1707.	1.4	26
54	Observation of near-zero ozone concentrations in the upper troposphere at mid-latitudes. Geophysical Research Letters, 1998, 25, 1173-1176.	4.0	25

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55	Coordinated Airborne Studies in the Tropics (CAST). Bulletin of the American Meteorological Society, 2017, 98, 145-162.	3.3	25
56	Water vapour and ozone profiles in the midlatitude upper troposphere. Atmospheric Chemistry and Physics, 2005, 5, 963-971.	4.9	24
57	Latitudinal distribution of stratospheric aerosols during the EASOE winter 1991/92. Geophysical Research Letters, 1994, 21, 1283-1286.	4.0	22
58	Aerosol and thermodynamic effects on tropical cloud systems during TWPICE and ACTIVE. Atmospheric Chemistry and Physics, 2009, 9, 15-24.	4.9	22
59	Acceleration of nearâ€surface strong winds in a dry, idealised extratropical cyclone. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 1004-1016.	2.7	22
60	Lidar measurements of Mt. Pinatubo aerosols at Aberystwyth from August 1991 through March 1992. Geophysical Research Letters, 1994, 21, 1315-1318.	4.0	21
61	Composition of the TTL over Darwin: local mixing or long-range transport?. Atmospheric Chemistry and Physics, 2009, 9, 7725-7736.	4.9	20
62	Use of MST radars to probe the mesoscale structure of the tropopause. Tellus, Series A: Dynamic Meteorology and Oceanography, 1995, 47, 759-765.	1.7	19
63	Effects of humidity and precipitation on VHF radar vertical beam echoes. Radio Science, 2000, 35, 1389-1398.	1.6	17
64	Aerosol observations and growth rates downwind of the anvil of a deep tropical thunderstorm. Atmospheric Chemistry and Physics, 2012, 12, 6157-6172.	4.9	17
65	Gravityâ€waveâ€induced perturbations in marine stratocumulus. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 32-45.	2.7	17
66	Measurement Report: Lidar measurements of stratospheric aerosol following the 2019 Raikoke and Ulawun volcanic eruptions. Atmospheric Chemistry and Physics, 2021, 21, 5597-5604.	4.9	17
67	Air sampling flights round the British Isles at low altitudes: SO2 oxidation and removal rates. Atmospheric Environment, 1984, 18, 1777-1790.	1.0	16
68	Ozonesonde profiles from the West Pacific Warm Pool: measurements and validation. Atmospheric Chemistry and Physics, 2016, 16, 619-634.	4.9	16
69	Convective inhibition beneath an upperâ€level PV anomaly. Quarterly Journal of the Royal Meteorological Society, 2008, 134, 371-383.	2.7	15
70	Largeâ€scale potential vorticity anomalies and deep convection. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 1627-1639.	2.7	15
71	Nearâ€surface strong winds in a marine extratropical cyclone: acceleration of the winds and the importance of surface fluxes. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 321-332.	2.7	15
72	Diabatic Heating and Cooling Rates Derived from In Situ Microphysics Measurements: A Case Study of a Wintertime U.K. Cold Front. Monthly Weather Review, 2014, 142, 3100-3125.	1.4	14

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73	Observations of Streamers in the Troposphere and Stratosphere Using Ozone Lidar. Journal of Atmospheric Chemistry, 2001, 38, 295-315.	3.2	13
74	Can aerosols influence deep tropical convection? Aerosol indirect effects in the Hector island thunderstorm. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 2190-2208.	2.7	13
75	Modelling the effects of gravity waves on stratocumulus clouds observed during VOCALS-UK. Atmospheric Chemistry and Physics, 2013, 13, 7133-7152.	4.9	13
76	Tracer filamentation generated by small-scale Rossby wave breaking in the lower stratosphere. Journal of Geophysical Research, 2002, 107, ACL 12-1-ACL 12-14.	3.3	12
77	Mesospheric ozone-theory and observation. Quarterly Journal of the Royal Meteorological Society, 1984, 110, 239-260.	2.7	12
78	Generation of layering in the lower stratosphere by a breaking Rossby wave. Journal of Geophysical Research, 2002, 107, ACL 7-1.	3.3	11
79	Observations of ozone-poor air in the tropical tropopause layer. Atmospheric Chemistry and Physics, 2018, 18, 5157-5171.	4.9	11
80	Aircraft Measurements of a Warm Conveyor Belt â€“ A Case Study. Journal of Atmospheric Chemistry, 2003, 46, 117-129.	3.2	10
81	SAOZ measurements of NO2 at Aberystwyth. Journal of Environmental Monitoring, 2006, 8, 353.	2.1	10
82	Lightning-produced NO_x during the Northern Australian monsoon; results from the ACTIVE campaign. Atmospheric Chemistry and Physics, 2009, 9, 7419-7429.	4.9	10
83	Early Evolution of the 23â€“26 September 2012 U.K. Floods: Tropical Storm Nadine and Diabatic Heating due to Cloud Microphysics. Monthly Weather Review, 2017, 145, 543-563.	1.4	10
84	A Global Climatology of Tropospheric Inertial Instability. Journals of the Atmospheric Sciences, 2018, 75, 805-825.	1.7	10
85	Interpretation of ozone measurements by ground-based visible spectroscopyâ€”a study of the seasonal dependence of airmass factors for ozone based on climatology data. Journal of Quantitative Spectroscopy and Radiative Transfer, 1997, 57, 569-579.	2.3	9
86	Fine-scale layering on the edge of a stratospheric intrusion. Atmospheric Environment, 2001, 35, 2215-2221.	4.1	9
87	Ozone loss from quasi-conservative coordinate mapping during the 1999â€“2000 SOLVE/THESEO 2000 campaigns. Journal of Geophysical Research, 2002, 107, SOL 16-1.	3.3	9
88	Solar tides in the middle atmosphere. I: Description of satellite observations and comparison with theoretical calculations at equinox. Quarterly Journal of the Royal Meteorological Society, 1985, 111, 677-689.	2.7	9
89	Evaluation of wind profiles from the NERC MST radar, Aberystwyth, UK. Atmospheric Measurement Techniques, 2014, 7, 3113-3126.	3.1	8
90	Numerical simulation of tropical island thunderstorms (Hectors) during the ACTIVE campaign. Meteorological Applications, 2013, 20, 357-370.	2.1	7

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91	A strange cloud in the Arctic summer stratosphere 1998 above Esrange (68Â°N), Sweden. Annales Geophysicae, 2000, 18, 505-509.	1.6	7
92	Removal of meteorological synoptic-scale disturbances from TOMS total ozone fields. Geophysical Research Letters, 1994, 21, 1475-1478.	4.0	6
93	Convection forced by a descending dry layer and low-level moist convergence. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 61, 250.	1.7	6
94	Invigoration and Capping of a Convective Rainband ahead of a Potential Vorticity Anomaly. Monthly Weather Review, 2017, 145, 2093-2117.	1.4	6
95	Decay of a cut-off low and contribution to stratosphere-troposphere exchange. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 1117-1141.	2.7	6
96	Classifying fronts in data from a VHF wind-profiling radar. Atmospheric Science Letters, 2011, 12, 375-380.	1.9	5
97	Precipitation Banding in Idealized Baroclinic Waves. Monthly Weather Review, 2014, 142, 3081-3099.	1.4	4
98	The 23â€“26 September 2012 U.K. Floods: Using PV Surgery to Quantify Sensitivity to Upper-Level Forcing. Monthly Weather Review, 2017, 145, 4055-4079.	1.4	4
99	Break-up of a stratospheric streamer observed by MST radar. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 1751-1769.	2.7	4
100	Variability of Precipitation along Cold Fronts in Idealized Baroclinic Waves. Monthly Weather Review, 2017, 145, 2971-2992.	1.4	3
101	Dynamical influences on stratospheric aerosols observed at Aberystwyth in early 1983. Tellus, Series B: Chemical and Physical Meteorology, 1987, 39, 398-411.	1.6	2
102	Observations of subtropical air in the European mid-latitude lower stratosphere. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 2965-2986.	2.7	2
103	SAOZ measurements of total ozone at Aberystwyth. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 69, 231-243.	2.3	1
104	Lidar Observations of Pollution Transport From London to Rural Areas. EPJ Web of Conferences, 2016, 119, 23009.	0.3	1
105	The distribution and size of laminae of enhanced and depleted ozone in the lower stratosphere. Advances in Space Research, 1992, 12, 177-180.	2.6	0
106	Lidar and Radar Measurements of the melting layer in the frame of the Convective and Orographicallyâ€induced Precipitation Study. , 2009, , .		0
107	Multiple bands near fronts in <scp>VHF</scp> windâ€profiling radar and radiosonde data. Atmospheric Science Letters, 2013, 14, 146-152.	1.9	0