

# Alexander Gohm

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

1,491  
citations

279798

23  
h-index

345221

36  
g-index

64  
all docs

64  
docs citations

64  
times ranked

1235  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exchange Processes in the Atmospheric Boundary Layer Over Mountainous Terrain. <i>Atmosphere</i> , 2018, 9, 102.	2.3	131
2	Air Pollution Transport in an Alpine Valley: Results From Airborne and Ground-Based Observations. <i>Boundary-Layer Meteorology</i> , 2009, 131, 441-463.	2.3	93
3	On the onset of bora and the formation of rotors and jumps near a mountain gap. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2008, 134, 21-46.	2.7	80
4	Gap flows: Results from the Mesoscale Alpine Programme. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007, 133, 881-896.	2.7	76
5	The World is Not Flat: Implications for the Global Carbon Balance. <i>Bulletin of the American Meteorological Society</i> , 2014, 95, 1021-1028.	3.3	60
6	The impact of valley geometry on daytime thermally driven flows and vertical transport processes. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2015, 141, 1780-1794.	2.7	54
7	Numerical and observational case-study of a deep Adriatic bora. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2005, 131, 1363-1392.	2.7	53
8	Hydraulic aspects of föhn winds in an Alpine valley. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2004, 130, 449-480.	2.7	51
9	Temporal precipitation variability versus altitude on a tropical high mountain: Observations and mesoscale atmospheric modelling. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009, 135, 1439-1455.	2.7	51
10	The Impact of Three-Dimensional Effects on the Simulation of Turbulence Kinetic Energy in a Major Alpine Valley. <i>Boundary-Layer Meteorology</i> , 2018, 168, 1-27.	2.3	51
11	South Foehn in the Wipp Valley on 24 October 1999 (MAP IOP 10): Verification of High-Resolution Numerical Simulations with Observations. <i>Monthly Weather Review</i> , 2004, 132, 78-102.	1.4	50
12	Investigating Exchange Processes over Complex Topography: The Innsbruck Box (i-Box). <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 787-805.	3.3	49
13	On the Vertical Exchange of Heat, Mass, and Momentum Over Complex, Mountainous Terrain. <i>Frontiers in Earth Science</i> , 0, 3, .	1.8	48
14	The Impact of Horizontal Model Grid Resolution on the Boundary Layer Structure over an Idealized Valley. <i>Monthly Weather Review</i> , 2014, 142, 3446-3465.	1.4	46
15	Spatial distribution of aerosols in the Inn Valley atmosphere during wintertime. <i>Meteorology and Atmospheric Physics</i> , 2009, 103, 223-235.	2.0	39
16	Gap flow measurements during the Mesoscale Alpine Programme. <i>Meteorology and Atmospheric Physics</i> , 2004, 86, 99-119.	2.0	36
17	A multimethodological approach to study the spatial distribution of air pollution in an Alpine valley during wintertime. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 3385-3396.	4.9	35
18	Idealised Simulations of Daytime Pollution Transport in a Steep Valley and its Sensitivity to Thermal Stratification and Surface Albedo. <i>Boundary-Layer Meteorology</i> , 2010, 134, 327-351.	2.3	35

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19	The Impact of the Temperature Inversion Breakup on the Exchange of Heat and Mass in an Idealized Valley: Sensitivity to the Radiative Forcing. <i>Journal of Applied Meteorology and Climatology</i> , 2015, 54, 2199-2216.	1.5	31
20	The mesoscale structure of a polar low: airborne lidar measurements and simulations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 1516-1531.	2.7	27
21	The impact of embedded valleys on daytime pollution transport over a mountain range. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11981-11998.	4.9	27
22	Quantifying horizontal and vertical tracer mass fluxes in an idealized valley during daytime. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13049-13066.	4.9	27
23	The impact of the PBL scheme and the vertical distribution of model layers on simulations of Alpine foehn. <i>Meteorology and Atmospheric Physics</i> , 2008, 99, 105-128.	2.0	26
24	South foehn in the Wipp Valley ? Innsbruck region: Numerical simulations of the 24 October 1999 case (MAP-IOP 10). <i>Meteorology and Atmospheric Physics</i> , 2004, 86, 213-243.	2.0	25
25	Influence of along-valley terrain heterogeneity on exchange processes over idealized valleys. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 6589-6603.	4.9	25
26	Observations of the Temporal Evolution and Spatial Structure of the Gap Flow in the Wipp Valley on 2 and 3 October 1999. <i>Monthly Weather Review</i> , 2004, 132, 2684-2697.	1.4	24
27	Foehn-cold pool interactions in the Inn Valley during PIANO IOP2. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2020, 146, 1232-1263.	2.7	19
28	Large-eddy simulation of foehn-cold pool interactions in the Inn Valley during PIANO IOP2. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2021, 147, 944-982.	2.7	17
29	Studying Urban Climate and Air Quality in the Alps: The Innsbruck Atmospheric Observatory. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E488-E507.	3.3	17
30	Current challenges for numerical weather prediction in complex terrain: Topography representation and parameterizations. , 2016, , .		15
31	A New Horizontal Length Scale for a Three-Dimensional Turbulence Parameterization in Mesoscale Atmospheric Modeling over Highly Complex Terrain. <i>Journal of Applied Meteorology and Climatology</i> , 2019, 58, 2087-2102.	1.5	14
32	2D Airflow over a Double Bell-Shaped Mountain. <i>Meteorology and Atmospheric Physics</i> , 2000, 72, 13-27.	2.0	13
33	An Automobile Platform for the Measurement of Foehn and Gap Flows. <i>Journal of Atmospheric and Oceanic Technology</i> , 2002, 19, 1545-1556.	1.3	13
34	The orographic impact on patterns of embedded convection during the August 2005 Alpine flood. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 2092-2105.	2.7	13
35	Evolution and structure of a cold front in an Alpine valley as revealed by a Doppler lidar. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2010, 136, 962-977.	2.7	12
36	Lake and Orographic Effects on a Snowstorm at Lake Constance. <i>Monthly Weather Review</i> , 2016, 144, 4687-4707.	1.4	12

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37	CROSSINN: A Field Experiment to Study the Three-Dimensional Flow Structure in the Inn Valley, Austria. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E38-E60.	3.3	10
38	The Missing Link between Terrain-Induced Potential Vorticity Banners and Banded Convection. <i>Monthly Weather Review</i> , 2016, 144, 4063-4080.	1.4	9
39	Toward Generalizing the Impact of Surface Heating, Stratification, and Terrain Geometry on the Daytime Heat Export from an Idealized Valley. <i>Journal of Applied Meteorology and Climatology</i> , 2017, 56, 2711-2727.	1.5	9
40	Unravelling the March 1972 northwest Greenland windstorm with high-resolution numerical simulations. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2019, 145, 3409-3431.	2.7	9
41	Small-scale dynamics of the south foehn in the lower Wipp Valley. <i>Meteorology and Atmospheric Physics</i> , 2006, 93, 79-95.	2.0	8
42	Assessing the added value of the Intermediate Complexity Atmospheric Research (ICAR) model for precipitation in complex topography. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 2715-2734.	4.9	8
43	Cold-Air Pool Processes in the Inn Valley During Föhn: A Comparison of Four Cases During the PIANO Campaign. <i>Boundary-Layer Meteorology</i> , 2022, 182, 335-362.	2.3	7
44	Spatial heterogeneity of the Inn Valley Cold Air Pool during south foehn: Observations from an array of temperature loggers during PIANO. <i>Meteorologische Zeitschrift</i> , 2021, 30, 153-168.	1.0	6
45	A process-based evaluation of the Intermediate Complexity Atmospheric Research Model (ICAR) 1.0.1. <i>Geoscientific Model Development</i> , 2021, 14, 1657-1680.	3.6	5
46	Influence of grid resolution of large-eddy simulations on foehn-cold pool interaction. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2022, 148, 1840-1863.	2.7	5
47	Energy and mass exchange at an urban site in mountainous terrain – the Alpine city of Innsbruck. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 6559-6593.	4.9	4
48	Cross-valley vortices in the Inn valley, Austria: Structure, evolution and governing force imbalances. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2021, 147, 3835-3861.	2.7	3
49	Nature and climatology of Pfänderwind. <i>Meteorologische Zeitschrift</i> , 2015, 24, 243-259.	1.0	3
50	Is it north or west foehn? A Lagrangian analysis of Penetration and Interruption of Alpine Foehn intensive observation period 1 (PIANO IOP 1). <i>Weather and Climate Dynamics</i> , 2022, 3, 279-303.	3.5	2