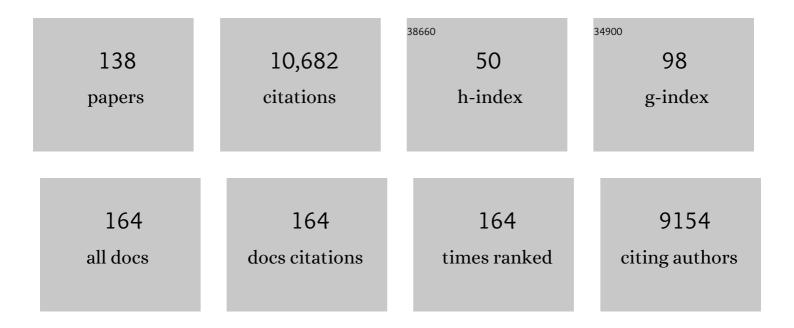
Tapio E Schneider

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Migrations and dynamics of the intertropical convergence zone. Nature, 2014, 513, 45-53.	13.7	909
2	The physical basis for increases in precipitation extremes in simulations of 21st-century climate change. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14773-14777.	3.3	853
3	Analysis of Incomplete Climate Data: Estimation of Mean Values and Covariance Matrices and Imputation of Missing Values. Journal of Climate, 2001, 14, 853-871.	1.2	591
4	Estimation of parameters and eigenmodes of multivariate autoregressive models. ACM Transactions on Mathematical Software, 2001, 27, 27-57.	1.6	400
5	WATER VAPOR AND THE DYNAMICS OF CLIMATE CHANGES. Reviews of Geophysics, 2010, 48, .	9.0	358
6	Algorithm 808. ACM Transactions on Mathematical Software, 2001, 27, 58-65.	1.6	310
7	The General Circulation of the Atmosphere. Annual Review of Earth and Planetary Sciences, 2006, 34, 655-688.	4.6	285
8	Eddy Influences on Hadley Circulations: Simulations with an Idealized GCM. Journals of the Atmospheric Sciences, 2006, 63, 3333-3350.	0.6	241
9	The Hydrological Cycle over a Wide Range of Climates Simulated with an Idealized GCM. Journal of Climate, 2008, 21, 3815-3832.	1.2	240
10	Earth System Modeling 2.0: A Blueprint for Models That Learn From Observations and Targeted Highâ€Resolution Simulations. Geophysical Research Letters, 2017, 44, 12,396.	1.5	197
11	Monsoons as eddy-mediated regime transitions of the tropical overturning circulation. Nature Geoscience, 2008, 1, 515-519.	5.4	192
12	A Conceptual Framework for Predictability Studies. Journal of Climate, 1999, 12, 3133-3155.	1.2	178
13	Climate goals and computing the future of clouds. Nature Climate Change, 2017, 7, 3-5.	8.1	177
14	Scaling of Precipitation Extremes over a Wide Range of Climates Simulated with an Idealized GCM. Journal of Climate, 2009, 22, 5676-5685.	1.2	172
15	Atmospheric Dynamics of Earth‣ike Tidally Locked Aquaplanets. Journal of Advances in Modeling Earth Systems, 2010, 2, .	1.3	160
16	The Surface Branch of the Zonally Averaged Mass Transport Circulation in the Troposphere. Journals of the Atmospheric Sciences, 1999, 56, 1688-1697.	0.6	151
17	Sources of variations in total column carbon dioxide. Atmospheric Chemistry and Physics, 2011, 11, 3581-3593.	1.9	149
18	Possible climate transitions from breakup of stratocumulus decks under greenhouse warming. Nature Geoscience, 2019, 12, 163-167.	5.4	148

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19	Energetic Constraints on the Position of the Intertropical Convergence Zone. Journal of Climate, 2014, 27, 4937-4951.	1.2	146
20	Self-Organization of Atmospheric Macroturbulence into Critical States of Weak Nonlinear Eddy–Eddy Interactions. Journals of the Atmospheric Sciences, 2006, 63, 1569-1586.	0.6	136
21	Continental arc-island arc fluctuations, growth of crustal carbonates, and long-term climate change. , 2013, 9, 21-36.		134
22	Formation of Jets and Equatorial Superrotation on Jupiter. Journals of the Atmospheric Sciences, 2009, 66, 579-601.	0.6	132
23	Physics of Changes in Synoptic Midlatitude Temperature Variability. Journal of Climate, 2015, 28, 2312-2331.	1.2	131
24	Eddy-Mediated Regime Transitions in the Seasonal Cycle of a Hadley Circulation and Implications for Monsoon Dynamics. Journals of the Atmospheric Sciences, 2008, 65, 915-934.	0.6	126
25	The Tropopause and the Thermal Stratification in the Extratropics of a Dry Atmosphere. Journals of the Atmospheric Sciences, 2004, 61, 1317-1340.	0.6	124
26	Polar methane accumulation and rainstorms on Titan from simulations of the methane cycle. Nature, 2012, 481, 58-61.	13.7	118
27	Disentangling Global Warming, Multidecadal Variability, and El Niño in Pacific Temperatures. Geophysical Research Letters, 2018, 45, 2487-2496.	1.5	114
28	Mechanisms of Jet Formation on the Giant Planets. Journals of the Atmospheric Sciences, 2010, 67, 3652-3672.	0.6	105
29	Seasonal and Interannual Variations of the Energy Flux Equator and ITCZ. Part I: Zonally Averaged ITCZ Position. Journal of Climate, 2016, 29, 3219-3230.	1.2	104
30	Narrowing of the ITCZ in a warming climate: Physical mechanisms. Geophysical Research Letters, 2016, 43, 11,350.	1.5	102
31	Energy of Midlatitude Transient Eddies in Idealized Simulations of Changed Climates. Journal of Climate, 2008, 21, 5797-5806.	1.2	100
32	The imprint of surface fluxes and transport on variations in total column carbon dioxide. Biogeosciences, 2012, 9, 875-891.	1.3	98
33	Shallowness of tropical low clouds as a predictor of climate models' response to warming. Climate Dynamics, 2016, 47, 433-449.	1.7	92
34	Constraints on Climate Sensitivity from Space-Based Measurements of Low-Cloud Reflection. Journal of Climate, 2016, 29, 5821-5835.	1.2	91
35	Statistics of an Unstable Barotropic Jet from a Cumulant Expansion. Journals of the Atmospheric Sciences, 2008, 65, 1955-1966.	0.6	89
36	Response of the Hadley Circulation to Climate Change in an Aquaplanet GCM Coupled to a Simple Representation of Ocean Heat Transport. Journals of the Atmospheric Sciences, 2011, 68, 769-783.	0.6	84

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37	Storms in the tropics of Titan. Nature, 2009, 460, 873-875.	13.7	81
38	The Role of Stationary Eddies in Shaping Midlatitude Storm Tracks. Journals of the Atmospheric Sciences, 2013, 70, 2596-2613.	0.6	76
39	The Equatorial Energy Balance, ITCZ Position, and Double-ITCZ Bifurcations. Journal of Climate, 2016, 29, 2997-3013.	1.2	74
40	Role of Changes in Mean Temperatures versus Temperature Gradients in the Recent Widening of the Hadley Circulation. Journal of Climate, 2014, 27, 7450-7461.	1.2	73
41	Seasonal and Interannual Variations of the Energy Flux Equator and ITCZ. Part II: Zonally Varying Shifts of the ITCZ. Journal of Climate, 2016, 29, 7281-7293.	1.2	70
42	Regional and seasonal variations of the double-ITCZ bias in CMIP5 models. Climate Dynamics, 2018, 51, 101-117.	1.7	66
43	Discriminants of Twentieth-Century Changes in Earth Surface Temperatures. Journal of Climate, 2001, 14, 249-254.	1.2	65
44	Winter cold of eastern continental boundaries induced by warm ocean waters. Nature, 2011, 471, 621-624.	13.7	63
45	Relation of the doubleâ€ITCZ bias to the atmospheric energy budget in climate models. Geophysical Research Letters, 2016, 43, 7670-7677.	1.5	62
46	Hadley Circulation Response to Orbital Precession. Part I: Aquaplanets. Journal of Climate, 2013, 26, 740-753.	1.2	61
47	A Climatology of Tropospheric Zonal-Mean Water Vapor Fields and Fluxes in Isentropic Coordinates. Journal of Climate, 2006, 19, 5918-5933.	1.2	57
48	Baroclinic Eddies and the Extent of the Hadley Circulation: An Idealized GCM Study. Journals of the Atmospheric Sciences, 2015, 72, 2744-2761.	0.6	57
49	Energetic Constraints on the Width of the Intertropical Convergence Zone. Journal of Climate, 2016, 29, 4709-4721.	1.2	57
50	An Extended Eddyâ€Diffusivity Massâ€Flux Scheme for Unified Representation of Subgridâ€Scale Turbulence and Convection. Journal of Advances in Modeling Earth Systems, 2018, 10, 770-800.	1.3	55
51	Response of idealized Hadley circulations to seasonally varying heating. Geophysical Research Letters, 2005, 32, .	1.5	54
52	Pattern Recognition Methods to Separate Forced Responses from Internal Variability in Climate Model Ensembles and Observations. Journal of Climate, 2020, 33, 8693-8719.	1.2	53
53	The Tropical Precipitation Response to Orbital Precession. Journal of Climate, 2013, 26, 2010-2021.	1.2	52
54	Hadley Circulation Response to Orbital Precession. Part II: Subtropical Continent. Journal of Climate, 2013, 26, 754-771.	1.2	52

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55	Boundary Effects in Potential Vorticity Dynamics. Journals of the Atmospheric Sciences, 2003, 60, 1024-1040.	0.6	50
56	Extent of Hadley circulations in dry atmospheres. Geophysical Research Letters, 2008, 35, .	1.5	48
57	Regime Transitions of Steady and Time-Dependent Hadley Circulations: Comparison of Axisymmetric and Eddy-Permitting Simulations. Journals of the Atmospheric Sciences, 2010, 67, 1643-1654.	0.6	48
58	Storm Track Shifts under Climate Change: What Can Be Learned from Large-Scale Dry Dynamics. Journal of Climate, 2013, 26, 9923-9930.	1.2	48
59	Changes in Zonal Surface Temperature Gradients and Walker Circulations in a Wide Range of Climates. Journal of Climate, 2011, 24, 4757-4768.	1.2	47
60	Recovery of atmospheric flow statistics in a general circulation model without nonlinear eddyâ€eddy interactions. Geophysical Research Letters, 2007, 34, .	1.5	45
61	Moist Convection and the Thermal Stratification of the Extratropical Troposphere. Journals of the Atmospheric Sciences, 2008, 65, 3571-3583.	0.6	45
62	Storm-Track Shifts under Climate Change: Toward a Mechanistic Understanding Using Baroclinic Mean Available Potential Energy. Journals of the Atmospheric Sciences, 2017, 74, 93-110.	0.6	44
63	Feedback of Atmosphereâ€Ocean Coupling on Shifts of the Intertropical Convergence Zone. Geophysical Research Letters, 2017, 44, 11,644.	1.5	44
64	Scaling Laws and Regime Transitions of Macroturbulence in Dry Atmospheres. Journals of the Atmospheric Sciences, 2008, 65, 2153-2173.	0.6	43
65	Numerics and subgridâ€scale modeling in large eddy simulations of stratocumulus clouds. Journal of Advances in Modeling Earth Systems, 2017, 9, 1342-1365.	1.3	43
66	Calibrate, emulate, sample. Journal of Computational Physics, 2021, 424, 109716.	1.9	43
67	Wind driven capillary-gravity waves on Titan's lakes: Hard to detect or non-existent?. Icarus, 2013, 225, 403-412.	1.1	42
68	The Maintenance of the Relative Humidity of the Subtropical Free Troposphere. Journal of Climate, 2010, 23, 390-403.	1.2	40
69	A Climatology of the Tropospheric Thermal Stratification Using Saturation Potential Vorticity. Journal of Climate, 2007, 20, 5977-5991.	1.2	39
70	Interannual Variability in the Large-Scale Dynamics of the South Asian Summer Monsoon. Journal of Climate, 2015, 28, 3731-3750.	1.2	39
71	Consistent Changes in the Sea Ice Seasonal Cycle in Response to Global Warming. Journal of Climate, 2011, 24, 5325-5335.	1.2	38
72	Largeâ€eddy simulation in an anelastic framework with closed water and entropy balances. Journal of Advances in Modeling Earth Systems, 2015, 7, 1425-1456.	1.3	38

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73	Zonal Momentum Balance, Potential Vorticity Dynamics, and Mass Fluxes on Near-Surface Isentropes. Journals of the Atmospheric Sciences, 2005, 62, 1884-1900.	0.6	36
74	Convective Generation of Equatorial Superrotation in Planetary Atmospheres. Journals of the Atmospheric Sciences, 2011, 68, 2742-2756.	0.6	36
75	Linking Hadley Circulation and Storm Tracks in a Conceptual Model of the Atmospheric Energy Balance. Journals of the Atmospheric Sciences, 2018, 75, 841-856.	0.6	36
76	Martian atmospheric collapse: Idealized GCM studies. Icarus, 2015, 250, 553-569.	1.1	35
77	Downstream Self-Destruction of Storm Tracks. Journals of the Atmospheric Sciences, 2011, 68, 2459-2464.	0.6	33
78	Thermodynamic and dynamic controls on changes in the zonally anomalous hydrological cycle. Geophysical Research Letters, 2016, 43, 4640-4649.	1.5	32
79	Factors controlling Hadley circulation changes from the Last Glacial Maximum to the end of the 21st century. Geophysical Research Letters, 2017, 44, 8585-8591.	1.5	32
80	The Force Balance of the Southern Ocean Meridional Overturning Circulation. Journal of Physical Oceanography, 2013, 43, 1193-1208.	0.7	29
81	Stationary Eddies and the Zonal Asymmetry of Net Precipitation and Ocean Freshwater Forcing. Journal of Climate, 2015, 28, 5115-5133.	1.2	29
82	Stochastic Models for the Kinematics of Moisture Transport and Condensation in Homogeneous Turbulent Flows. Journals of the Atmospheric Sciences, 2006, 63, 2992-3005.	0.6	28
83	Why Eddy Momentum Fluxes are Concentrated in the Upper Troposphere. Journals of the Atmospheric Sciences, 2015, 72, 1585-1604.	0.6	27
84	Using generalized cross-validation to select parameters in inversions for regional carbon fluxes. Geophysical Research Letters, 2004, 31, .	1.5	26
85	Predictions of thermal and gravitational signals of Jupiter's deep zonal winds. Icarus, 2013, 224, 114-125.	1.1	26
86	Assessing Biases and Climate Implications of the Diurnal Precipitation Cycle in Climate Models. Geophysical Research Letters, 2021, 48, e2021GL093017.	1.5	25
87	Weather-Layer Dynamics of Baroclinic Eddies and Multiple Jets in an Idealized General Circulation Model. Journals of the Atmospheric Sciences, 2008, 65, 524-535.	0.6	24
88	Scales of Linear Baroclinic Instability and Macroturbulence in Dry Atmospheres. Journals of the Atmospheric Sciences, 2009, 66, 1821-1833.	0.6	24
89	Eddy Lifetime, Number, and Diffusivity and the Suppression of Eddy Kinetic Energy in Midwinter. Journal of Climate, 2018, 31, 5649-5665.	1.2	24
90	Atmospheric Circulation Response to Short-Term Arctic Warming in an Idealized Model. Journals of the Atmospheric Sciences, 2020, 77, 531-549.	0.6	24

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91	Largeâ€eddy simulation of subtropical cloudâ€ŧopped boundary layers: 2. Cloud response to climate change. Journal of Advances in Modeling Earth Systems, 2017, 9, 19-38.	1.3	22
92	Constraining the Date of a Seasonally Iceâ€Free Arctic Using a Simple Model. Geophysical Research Letters, 2021, 48, e2021GL094309.	1.5	22
93	Superrotation in Terrestrial Atmospheres. Journals of the Atmospheric Sciences, 2015, 72, 4281-4296.	0.6	21
94	Local Energetic Constraints on Walker Circulation Strength. Journals of the Atmospheric Sciences, 2017, 74, 1907-1922.	0.6	21
95	Atmospheric Dynamics Feedback: Concept, Simulations, and Climate Implications. Journal of Climate, 2018, 31, 3249-3264.	1.2	21
96	Calibration and Uncertainty Quantification of Convective Parameters in an Idealized GCM. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002454.	1.3	20
97	Cumulant expansions for atmospheric flows. New Journal of Physics, 2016, 18, 025019.	1.2	18
98	Largeâ€eddy simulation of subtropical cloudâ€ŧopped boundary layers: 1. A forcing framework with closed surface energy balance. Journal of Advances in Modeling Earth Systems, 2016, 8, 1565-1585.	1.3	18
99	A Conceptual Model for the Response of Tropical Rainfall to Orbital Variations. Journal of Climate, 2017, 30, 8375-8391.	1.2	17
100	Mechanisms Setting the Strength of Orographic Rossby Waves across a Wide Range of Climates in a Moist Idealized GCM. Journal of Climate, 2018, 31, 7679-7700.	1.2	17
101	Comment on "Spatio-temporal filling of missing points in geophysical data sets" by D. Kondrashov and M. Ghil, Nonlin. Processes Geophys., 13, 151–159, 2006. Nonlinear Processes in Geophysics, 2007, 14, 1-2.	0.6	17
102	Constraining the depth of Saturn's zonal winds by measuring thermal and gravitational signals. Icarus, 2014, 239, 260-272.	1.1	16
103	Scaling of Off-Equatorial Jets in Giant Planet Atmospheres. Journals of the Atmospheric Sciences, 2015, 72, 389-408.	0.6	16
104	Unified Entrainment and Detrainment Closures for Extended Eddyâ€Diffusivity Massâ€Flux Schemes. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002162.	1.3	15
105	How Stationary Eddies Shape Changes in the Hydrological Cycle: Zonally Asymmetric Experiments in an Idealized GCM. Journal of Climate, 2016, 29, 3161-3179.	1.2	14
106	Iterated Kalman methodology for inverse problems. Journal of Computational Physics, 2022, 463, 111262.	1.9	14
107	The Relative Humidity in an Isentropic Advection–Condensation Model: Limited Poleward Influence and Properties of Subtropical Minima. Journals of the Atmospheric Sciences, 2011, 68, 3079-3093.	0.6	13
108	Recovery and characterization of Neptune's near-polar stratospheric hot spot. Planetary and Space Science, 2012, 61, 161-167.	0.9	13

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109	Both differential and equatorial heating contributed to African monsoon variations during the mid-Holocene. Earth and Planetary Science Letters, 2019, 522, 20-29.	1.8	12
110	A Continuous Record of Central Tropical Pacific Climate Since the Midnineteenth Century Reconstructed From Fanning and Palmyra Island Corals: A Case Study in Coral Data Reanalysis. Paleoceanography and Paleoclimatology, 2020, 35, e2020PA003848.	1.3	12
111	A Generalized Mixing Length Closure for Eddyâ€Diffusivity Massâ€Flux Schemes of Turbulence and Convection. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002161.	1.3	12
112	Singleâ€layer axisymmetric model for a Hadley circulation with parameterized eddy momentum forcing. Journal of Advances in Modeling Earth Systems, 2009, 1, .	1.3	11
113	Solar geoengineering may not prevent strong warming from direct effects of CO ₂ on stratocumulus cloud cover. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30179-30185.	3.3	11
114	Midwinter Suppression of Storm Tracks in an Idealized Zonally Symmetric Setting. Journals of the Atmospheric Sciences, 2020, 77, 297-313.	0.6	10
115	A Library of Largeâ€Eddy Simulations Forced by Global Climate Models. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	10
116	Evolving perspectives on abrupt seasonal changes of the general circulation. Advances in Atmospheric Sciences, 2017, 34, 1185-1194.	1.9	9
117	Accelerating progress in climate science. Physics Today, 2021, 74, 44-51.	0.3	9
118	Learning stochastic closures using ensemble Kalman inversion. Transactions of Mathematics and Its Applications, 2021, 5, .	1.6	9
119	Parameter Uncertainty Quantification in an Idealized GCM With a Seasonal Cycle. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	9
120	Epidemic management and control through risk-dependent individual contact interventions. PLoS Computational Biology, 2022, 18, e1010171.	1.5	9
121	Statistically Steady State Largeâ€Eddy Simulations Forced by an Idealized GCM: 1. Forcing Framework and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001814.	1.3	7
122	Chapter 3 The Thermal Stratification of the Extratropical Troposphere. , 2008, , 47-77.		7
123	Predicting the Interannual Variability of California's Total Annual Precipitation. Geophysical Research Letters, 2021, 48, e2020GL091465.	1.5	6
124	Uncertainty in climate-sensitivity estimates. Nature, 2007, 446, E1-E1.	13.7	5
125	The organization of Jupiter's upper tropospheric temperature structure and its evolution, 1996–1997. Icarus, 2016, 280, 268-277.	1.1	5
126	Contrasting responses to orbital precession on Titan and Earth. Geophysical Research Letters, 2016, 43, 7774-7780.	1.5	4

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127	Sensitivity of idealized mixedâ€phase stratocumulus to climate perturbations. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 3285-3305.	1.0	4
128	Top-of-Atmosphere Albedo Bias from Neglecting Three-Dimensional Cloud Radiative Effects. Journals of the Atmospheric Sciences, 2021, 78, 4053-4069.	0.6	4
129	Is the Surface Salinity Difference between the Atlantic and Indo-Pacific a Signature of the Atlantic Meridional Overturning Circulation?. Journal of Physical Oceanography, 2021, 51, 769-787.	0.7	3
130	Clobal Circulation of the Atmosphere (2004). Bulletin of the American Meteorological Society, 2006, 87, 807-810.	1.7	2
131	Concerning the Aims and Scope for <i>JAMES</i> . Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002567.	1.3	2
132	Narrowing of the ITCZ in a warming climate: Physical mechanisms. , 2016, 43, 11,350.		1
133	Feedback of Atmosphere-Ocean Coupling on Shifts of the Intertropical Convergence Zone. , 2017, 44, 11,644.		1
134	Climate 1970-2020. , 2020, , 23-32.		1
135	Seasonal Cycle of Idealized Polar Clouds: Large Eddy Simulations Driven by a GCM. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	1
136	Correction to "Atmospheric dynamics of Earth-like tidally locked aquaplanets― Journal of Advances in Modeling Earth Systems, 2012, 4, .	1.3	0
137	Corrigendum to "Both differential and equatorial heating contributed to African monsoon variations during the mid-Holocene―[Earth Planet. Sci. Lett. 522 (2019) 20–29]. Earth and Planetary Science Letters, 2020, 530, 115938.	1.8	0
138	Thank You to Our 2021 Reviewers. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	0