Veronika Eyring

List of Publications by Citations

128 papers	14,838 citations	51 h-index	121 g-index
166 ext. papers	18,550 ext. citations	7.4 avg, IF	6.09 L-index

#	Paper	IF	Citations
128	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. *Geoscientific Model Development*, **2016**, 9, 1937-1958	6.3	2373
127	Historical (1850–2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application. *Atmospheric Chemistry and Physics*, **2010**, 10, 7017-7039	6.8	1724
126	The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6. *Geoscientific Model Development*, **2016**, 9, 3461-3482	6.3	814
125	Mortality from ship emissions: a global assessment. *Environmental Science & Technology*, **2007**, 41, 8512-8	10.3	671
124	Transport impacts on atmosphere and climate: Shipping. *Atmospheric Environment*, **2010**, 44, 4735-4771	5.3	549
123	Pre-industrial to end 21st century projections of tropospheric ozone from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). *Atmospheric Chemistry and Physics* , **2013**, 13, 2063-2090	6.8	420
122	Emissions from international shipping: 1. The last 50 years. *Journal of Geophysical Research*, **2005**, 110,		388
121	Assessment of temperature, trace species, and ozone in chemistry-climate model simulations of the recent past. *Journal of Geophysical Research*, **2006**, 111,		374
120	Global air quality and climate. *Chemical Society Reviews*, **2012**, 41, 6663-83	58.5	334
119	The Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP): overview and description of models, simulations and climate diagnostics. *Geoscientific Model Development*, **2013**, 6, 179-206	6.3	304
118	Global premature mortality due to anthropogenic outdoor air pollution and the contribution of past climate change. *Environmental Research Letters*, **2013**, 8, 034005	6.2	279
117	Tropospheric ozone changes, radiative forcing and attribution to emissions in the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). *Atmospheric Chemistry and Physics* , **2013**, 13, 3063-3085	6.8	273
116	Multimodel projections of stratospheric ozone in the 21st century. *Journal of Geophysical Research*, **2007**, 112,		266
115	Evaluation of Climate Models741-866		264
114	Chemistry–Climate Model Simulations of Twenty-First Century Stratospheric Climate and Circulation Changes. *Journal of Climate*, **2010**, 23, 5349-5374	4.4	242
113	Impact of stratospheric ozone on Southern Hemisphere circulation change: A multimodel assessment. *Journal of Geophysical Research*, **2010**, 115,		239
112	Preindustrial to present-day changes in tropospheric hydroxyl radical and methane lifetime from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP). *Atmospheric Chemistry and Physics*, **2013**, 13, 5277-5298	6.8	234

111	Ozone database in support of CMIP5 simulations: results and corresponding radiative forcing. *Atmospheric Chemistry and Physics*, **2011**, 11, 11267-11292	6.8	221
110	Analysis of present day and future OH and methane lifetime in the ACCMIP simulations. *Atmospheric Chemistry and Physics*, **2013**, 13, 2563-2587	6.8	209
109	Atmospheric composition change: Climate–Chemistry interactions. *Atmospheric Environment*, **2009**, 43, 5138-5192	5.3	206
108	Long-term ozone changes and associated climate impacts in CMIP5 simulations. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 5029-5060	4.4	200
107	Taking climate model evaluation to the next level. *Nature Climate Change*, **2019**, 9, 102-110	21.4	200
106	Multi-model assessment of stratospheric ozone return dates and ozone recovery in CCMVal-2 models. *Atmospheric Chemistry and Physics*, **2010**, 10, 9451-9472	6.8	179
105	Emissions from international shipping: 2. Impact of future technologies on scenarios until 2050. *Journal of Geophysical Research*, **2005**, 110,		176
104	Global model simulations of the impact of ocean-going ships on aerosols, clouds, and the radiation budget. *Atmospheric Chemistry and Physics*, **2007**, 7, 5061-5079	6.8	169
103	Context for interpreting equilibrium climate sensitivity and transient climate response from the CMIP6 Earth system models. *Science Advances*, **2020**, 6, eaba1981	14.3	142
102	Mitigating the health impacts of pollution from oceangoing shipping: an assessment of low-sulfur fuel mandates. *Environmental Science & Technology*, **2009**, 43, 4776-82	10.3	137
101	A climate model projection weighting scheme accounting for performance and interdependence. *Geophysical Research Letters*, **2017**, 44, 1909	4.9	135
100	Review of the formulation of present-generation stratospheric chemistry-climate models and associated external forcings. *Journal of Geophysical Research*, **2010**, 115,		134
99	Multimodel climate and variability of the stratosphere. *Journal of Geophysical Research*, **2011**, 116,		122
98	AerChemMIP: quantifying the effects of chemistry and aerosols in CMIP6. *Geoscientific Model Development*, **2017**, 10, 585-607	6.3	119
97	A Strategy for Process-Oriented Validation of Coupled Chemistry–Climate Models. *Bulletin of the American Meteorological Society*, **2005**, 86, 1117-1134	6.1	118
96	Satellite measurements of NO2 from international shipping emissions. *Geophysical Research Letters* , **2004**, 31,	4.9	117
95	CMIP5 Scientific Gaps and Recommendations for CMIP6. *Bulletin of the American Meteorological Society*, **2017**, 98, 95-105	6.1	109
94	Multi-model simulations of the impact of international shipping on Atmospheric Chemistry and Climate in 2000 and 2030. *Atmospheric Chemistry and Physics*, **2007**, 7, 757-780	6.8	104

93	Climate Model Intercomparisons: Preparing for the Next Phase. *Eos*, **2014**, 95, 77-78	1.5	100
92	Projected land photosynthesis constrained by changes in the seasonal cycle of atmospheric CO. *Nature*, **2016**, 538, 499-501	50.4	99
91	Long-term changes and variability in a transient simulation with a chemistry-climate model employing realistic forcing. *Atmospheric Chemistry and Physics*, **2005**, 5, 2121-2145	6.8	95
90	ESMValTool (v1.0) a community diagnostic and performance metrics tool for routine evaluation of Earth system models in CMIP. *Geoscientific Model Development*, **2016**, 9, 1747-1802	6.3	93
89	Emergent constraints on climate-carbon cycle feedbacks in the CMIP5 Earth system models. *Journal of Geophysical Research G: Biogeosciences*, **2014**, 119, 794-807	3.7	91
88	Shipping emissions: from cooling to warming of climate-and reducing impacts on health. *Environmental Science & Technology*, **2009**, 43, 9057-62	10.3	89
87	Quantitative performance metrics for stratospheric-resolving chemistry-climate models. *Atmospheric Chemistry and Physics*, **2008**, 8, 5699-5713	6.8	81
86	Present-day and future global bottom-up ship emission inventories including polar routes. *Environmental Science & Technology*, **2010**, 44, 1333-9	10.3	69
85	The effect of future ambient air pollution on human premature mortality to 2100 using output from the ACCMIP model ensemble. *Atmospheric Chemistry and Physics*, **2016**, 16, 9847-9862	6.8	65
84	The Tropical Tropopause Layer 1960–2100. *Atmospheric Chemistry and Physics*, **2009**, 9, 1621-1637	6.8	65
83	Decline and recovery of total column ozone using a multimodel time series analysis. *Journal of Geophysical Research*, **2010**, 115,		64
82	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organisation		63
81	Projections of UV radiation changes in the 21st century: impact of ozone recovery and cloud effects. *Atmospheric Chemistry and Physics*, **2011**, 11, 7533-7545	6.8	61
80	Climate model projections from the Scenario Model Intercomparison Project (ScenarioMIP) of CMIP6. *Earth System Dynamics*, **2021**, 12, 253-293	4.8	60
79	Multimodel assessment of the upper troposphere and lower stratosphere: Extratropics. *Journal of Geophysical Research*, **2010**, 115,		56
78	Multimodel assessment of the factors driving stratospheric ozone evolution over the 21st century. *Journal of Geophysical Research*, **2010**, 115,		56
77	Sensitivity of 21st century stratospheric ozone to greenhouse gas scenarios. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	48
76	Towards improved and more routine Earth system model evaluation in CMIP. *Earth System Dynamics*, **2016**, 7, 813-830	4.8	48

75	Assessment of near-future policy instruments for oceangoing shipping: impact on atmospheric aerosol burdens and the earth? radiation budget. *Environmental Science & Technology*, **2009**, 43, 5592-8	10.3	47
74	Global ship track distribution and radiative forcing from 1 year of AATSR data. *Geophysical Research Letters*, **2007**, 34,	4.9	46
73	Climate impact of biofuels in shipping: global model studies of the aerosol indirect effect. *Environmental Science & Technology*, **2011**, 45, 3519-25	10.3	45
72	Ship emitted NO₂ in the Indian Ocean: comparison of model results with satellite data. *Atmospheric Chemistry and Physics*, **2009**, 9, 7289-7301	6.8	45
71	Prospects and Caveats of Weighting Climate Models for Summer Maximum Temperature Projections Over North America. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 4509-4526	4.4	39
70	Attribution of observed changes in stratospheric ozone and temperature. *Atmospheric Chemistry and Physics*, **2011**, 11, 599-609	6.8	34
69	Clear sky UV simulations for the 21st century based on ozone and temperature projections from Chemistry-Climate Models. *Atmospheric Chemistry and Physics*, **2009**, 9, 1165-1172	6.8	32
68	Earth System Model Evaluation Tool (ESMValTool) v2.0 an extended set of large-scale diagnostics for quasi-operational and comprehensive evaluation of Earth system models in CMIP. *Geoscientific Model Development*, **2020**, 13, 3383-3438	6.3	32
67	Earth System Model Evaluation Tool (ESMValTool) v2.0 technical overview. *Geoscientific Model Development*, **2020**, 13, 1179-1199	6.3	31
66	ESD Reviews: Climate feedbacks in the Earth system and prospects for their evaluation. *Earth System Dynamics*, **2019**, 10, 379-452	4.8	31
65	Benchmarking CMIP5 models with a subset of ESA CCI Phase 2 data using the ESMValTool. *Remote Sensing of Environment*, **2017**, 203, 9-39	13.2	27
64	Impact of ship emissions on the microphysical, optical and radiative properties of marine stratus: a case study. *Atmospheric Chemistry and Physics*, **2006**, 6, 4925-4942	6.8	27
63	Constraining Future Summer Austral Jet Stream Positions in the CMIP5 Ensemble by Process-Oriented Multiple Diagnostic Regression*. *Journal of Climate*, **2016**, 29, 673-687	4.4	26
62	Ozone database in support of CMIP5 simulations: results and corresponding radiative forcing		26
61	Evolving Obs4MIPs to Support Phase 6 of the Coupled Model Intercomparison Project (CMIP6). *Bulletin of the American Meteorological Society*, **2015**, 96, ES131-ES133	6.1	24
60	Historical (1850?2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application		24
59	Emergent constraints on equilibrium climate sensitivity in CMIP5: do they hold for CMIP6?. *Earth System Dynamics*, **2020**, 11, 1233-1258	4.8	21
58	Quantitative evaluation of ozone and selected climate parameters in a set of EMAC simulations. *Geoscientific Model Development*, **2015**, 8, 733-768	6.3	20

57	Global-mean temperature change from shipping toward 2050: improved representation of the indirect aerosol effect in simple climate models. *Environmental Science & Technology*, **2012**, 46, 8868-77	193	20
56	The potential to narrow uncertainty in projections of stratospheric ozone over the 21st century. *Atmospheric Chemistry and Physics*, **2010**, 10, 9473-9486	6.8	20
55	Improving Antarctic Total Ozone Projections by a Process-Oriented Multiple Diagnostic Ensemble Regression. *Journals of the Atmospheric Sciences*, **2013**, 70, 3959-3976	2.1	19
54	Toward effective emissions of ships in global models. *Meteorologische Zeitschrift*, **2008**, 17, 117-129	3.1	19
53	The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6 **2016**,		18
52	Causal networks for climate model evaluation and constrained projections. *Nature Communications*, **2020**, 11, 1415	17.4	16
51	Evaluating stratospheric ozone and water vapour changes in CMIP6 models from 1850 to 2100. *Atmospheric Chemistry and Physics*, **2021**, 21, 5015-5061	6.8	16
50	Dynamics and composition of the Asian summer monsoon anticyclone. *Atmospheric Chemistry and Physics*, **2018**, 18, 5655-5675	6.8	14
49	Toward Standardized Data Sets for Climate Model Experimentation. *Eos*, **2018**, 99,	1.5	13
48	Impact of large solar zenith angles on lower stratospheric dynamical and chemical processes in a coupled chemistry-climate model. *Atmospheric Chemistry and Physics*, **2003**, 3, 1981-1990	6.8	12
47	Process-level improvements in CMIP5 models and their impact on tropical variability, the Southern Ocean, and monsoons. *Earth System Dynamics*, **2018**, 9, 33-67	4.8	11
46	A community diagnostic tool for chemistry climate model validation. *Geoscientific Model Development*, **2012**, 5, 1061-1073	6.3	10
45	The impact of horizontal transport on the chemical composition in the tropopause region: lightning NOx and streamers. *Advances in Space Research*, **2004**, 33, 1058-1061	2.4	10
44	Analysis of present day and future OH and methane lifetime in the ACCMIP simulations		10
43	Quantifying Progress Across Different CMIP Phases With the ESMValTool. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD032321	4.4	10
42	Constraining Uncertainty in Projected Gross Primary Production With Machine Learning. *Journal of Geophysical Research G: Biogeosciences*, **2020**, 125, e2019JG005619	3.7	10
41	Global chemistry-climate modeling and evaluation. *Eos*, **2012**, 93, 539-539	1.5	9
40	Observations for Model Intercomparison Project (Obs4MIPs): status for CMIP6. *Geoscientific Model Development*, **2020**, 13, 2945-2958	6.3	9

39	Earth System Model Evaluation Tool (ESMValTool) v2.0 – diagnostics for emergent constraints and future projections from Earth system models in CMIP. *Geoscientific Model Development*, **2020**, 13, 4205-4228	6.3	9
38	Evaluating stratospheric ozone and water vapor changes in CMIP6 models from 1850–2100 **2020**,		8
37	Trace gas composition in the Asian summer monsoon anticyclone: a case study based on aircraft observations and model simulations. *Atmospheric Chemistry and Physics*, **2017**, 17, 6091-6111	6.8	8
36	A model intercomparison analysing the link between column ozone and geopotential height anomalies in January. *Atmospheric Chemistry and Physics*, **2008**, 8, 2519-2535	6.8	8
35	Climatologies of subtropical mixing derived from 3D models. *Atmospheric Chemistry and Physics*, **2003**, 3, 1007-1021	6.8	8
34	Pre-industrial to end 21st century projections of tropospheric ozone from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP)		8
33	Tropospheric ozone changes, radiative forcing and attribution to emissions in the Atmospheric Chemistry and Climate Model Inter-comparison Project (ACCMIP)		8
32	The Tropical Tropopause Layer 1960–2100		8
31	ESMValTool (v1.0) – a community diagnostic and performance metrics tool for routine evaluation of Earth System Models in CMIP		8
30	AerChemMIP: Quantifying the effects of chemistry and aerosols in CMIP6		7
29	Earth System Model Evaluation Tool (ESMValTool) v2.0 – diagnostics for extreme events, regional and impact evaluation and analysis of Earth system models in CMIP		7
28	Ship track characteristics derived from geostationary satellite observations on the west coast of southern Africa. *Atmospheric Research*, **2010**, 95, 32-39	5.4	6
27	The Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP): overview and description of models, simulations and climate diagnostics **2012**,		6
26	Interpretation of Mid-Stratospheric Arctic Ozone Measurements Using a Photochemical Box-Model. *Journal of Atmospheric Chemistry*, **1999**, 34, 281-290	3.2	6
25	Multi-model assessment of stratospheric ozone return dates and ozone recovery in CCMVal-2 models		5
24	Preindustrial to present day changes in tropospheric hydroxyl radical and methane lifetime from the Atmospheric Chemistry and Climate Model Intercomparison Project (ACCMIP)		5
23	Impact of Accurate Photolysis Calculations on the Simulation of Stratospheric Chemistry. *Journal of Atmospheric Chemistry*, **2003**, 44, 225-240	3.2	4
22	Ship emitted NO₂ in the Indian Ocean: comparison of model results with satellite data		4

21	Climate model projections from the Scenario Model Intercomparison Project (ScenarioMIP) of CMIP6		4
20	Earth System Model Evaluation Tool (ESMValTool) v2.0 – diagnostics for extreme events, regional and impact evaluation, and analysis of Earth system models in CMIP. *Geoscientific Model Development*, **2021**, 14, 3159-3184	6.3	4
19	ESMValTool v2.0 – Extended set of large-scale diagnostics for quasi-operational and comprehensive evaluation of Earth system models in CMIP **2019**,		4
18	Projections of UV radiation changes in the 21st century: impact of ozone recovery and cloud effects		3
17	Global model simulations of the impact of ocean-going ships on aerosols, clouds, and the radiation budget		3
16	Spatially resolved evaluation of Earth system models with satellite column-averaged CO₂. *Biogeosciences*, **2020**, 17, 6115-6144	4.6	3
15	Reflections and projections on a decade of climate science. *Nature Climate Change*, **2021**, 11, 279-285	21.4	3
14	Earth System Model Evaluation Tool (ESMValTool) v2.0 – diagnostics for emergent constraints and future projections from Earth system models in CMIP **2020**,		2
13	Quantitative performance metrics for stratospheric-resolving chemistry-climate models		2
12	Climate Impact of Transport. *Research Topics in Aerospace*, **2012**, 711-725		2
11	Atmospheric Composition Change: Climate–Chemistry Interactions **2012**, 309-365		1
10	Hemispheric ozone variability indices derived from satellite observations and comparison to a coupled chemistry-climate model. *Atmospheric Chemistry and Physics*, **2006**, 6, 5105-5120	6.8	1
9	A harmonic substitute model sheds light upon the rotational tunnelling spectrum of infinitely many coupled methyl groups. *Physica B: Condensed Matter*, **1995**, 212, 379-390	2.8	1
8	A model intercomparison analysing the link between ozone and geopotential height anomalies in January		1
7	Nonlinear Causal Link Estimation Under Hidden Confounding with an Application to Time Series Anomaly Detection. *Lecture Notes in Computer Science*, **2019**, 261-273	0.9	1
6	Globale Sicht des Klimawandels **2017**, 7-16		1
5	The effect of future ambient air pollution on human premature mortality to 2100 using output from the ACCMIP model ensemble **2016**,		1
4	Observations for Model Intercomparison Project (Obs4MIPs): Status for CMIP6 **2019**,		1

List of Publications

3 Climate feedbacks in the Earth system and prospects for their evaluation **2018**, 1

2 Global Chemistry-Climate Modelling with EMAC **2010**, 663-674

1 How Good are Chemistry-Climate Models?. *Research Topics in Aerospace*, **2012**, 763-779