

Dr. ANDREW GETTELMAN

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EDUCATION:

University of Washington, Seattle, WA, Ph.D. Atmospheric Sciences, June 1999

Thesis: “Stratosphere-Troposphere Exchange & the Impact of commercial Aviation on the Atmosphere”, James R. Holton Advisor

Certificate in Environmental Management, University of Washington Graduate School of Business, 1998

Princeton University, Princeton, NJ, BSE Civil Engineering, Certificate in Architecture 1992

PROFESSIONAL EXPERIENCE

U.S. Government Security Clearance (Through Nat'l Academy of Sciences), 2015-present

Visiting Scientist, European Centre for Medium Range Weather Forecasts, UK, Aug 2019-Jul 2020

Visiting Professor, Atmospheric & Oceanic Physics, Oxford University, UK, Aug 2019-Jul 2020

Scientist IV (Senior Scientist), NCAR, Boulder, CO, May 2017-Present

Erskine Fellow, University of Canterbury, Christchurch, New Zealand, June-August 2016

Visiting Scientist, Max Planck Institute for Meteorology, Hamburg, June-August 2014

Visiting Professor, ETH Zürich, Switzerland, August 2011-July 2012

Scientist III, NCAR, Boulder, CO, July 2010-May 2017

NCAR Leadership Academy September 2005- June 2006

Scientist II, NCAR, Boulder CO, July 2006-July 2010

Scientist I, NCAR, Boulder CO, July 2003-July 2006

Project Scientist, NCAR, Boulder CO, October 2001-July 2003

Postdoctoral Fellow, Advanced Study Program, NCAR, Boulder, CO, 1999-October 2001

EDUCATIONAL ACTIVITIES

Lecturer, Oxford School of Climate Change, Oxford University, UK, 2020

Erskine Fellow & Lecturer, Department of Physics, University of Canterbury, New Zealand 2016

Visiting Professor/Lecturer, Institute for Atmosphere & Climate Science, ETH Zürich, 2011-2012

Steering committee, CESM Modeling Tutorial, August 2011

Lecturer, WAVACS, Winter School, Venice, Italy, February 2011

Coordinator and Lecturer, CCSM Modeling Tutorial, July 2010

Coordinator and Lecturer, CAM Modeling Tutorial, July 2009

Post-Doctoral Research Mentor, NCAR ASP Program, 2006-present

Graduate Advisor, University of Washington, Seattle, WA, 2006-present

Graduate Advisor, University of Colorado, Boulder, CO, 2008-present

SOARS (research or writing) Mentor, Summer 2003, 2005, 2006

External Thesis Examiner, University of Waterloo, Ontario, 2006

Coordinator and Lecturer, Program in Atmos & Ocean Sci, Univ Colorado, Boulder, 2001

Scientific instructor for elementary teachers, University of Washington, 1998

Governing Board Member, Program on the Environment, Univ of Washington, 1998-1999

Teaching Assistant, Atmospheric Sciences, U.W., Seattle, WA, 1995-1996

Coordinator, Latona Elementary School Outreach Project, University of Washington, 1997

PROFESSIONAL ACTIVITIES/ AWARDS

Coordinator, Aerosols, Clouds Precipitation and Climate shallow clouds Working Group under WCRP & IGBP (2019-20)

NCAR Wyoming Supercomputer Center, Scientific Requirements Advisory Panel (2018-9)
 Developmental Testbed Center, External Advisory Panel (2018-present)
 NCAR Earth Observing Laboratory External Advisory Panel (2017-present)
 NASA Group Achievement Award for ATTREX project (2016)
 UCAR Information Technology Council (ITC) Science Representative (2016-present)
 AGU Ascent Award, 2015
 Member, National Academy of Sciences Panel, Opportunities to Improve the Representation of
 Clouds and Aerosols in Climate Models with Classified Observing Systems, 2015-2016
 DOE Atmospheric System Research, User Executive Committee Member (2015-2019)
 Thompson Reuters Highly Cited Researcher, 2014-2019
 Co-chair, NCAR Scientist's Assembly (NSA) Executive Committee (EC), 2014-2019
 Steering Committee, SPARC-IGAC Chemistry Climate Model Initiative, 2012-2019
 COMET Advisory Board, 2011-2017
 Associate Editor, Reviews of Geophysics, 2010-present
 Lead Author for SPARC Chemistry Climate Model Assessment UT/LS Chapter, 2010
 Associate Editor, JGR Atmospheres special issue on the Tropopause, 2007-2008
 Steering Committee, SPARC-IGAC Atmospheric Chemistry and Climate Initiative, 2007-2012
 Chair, NCAR Early Career Scientists Assembly (ECSA), 2007-2010
 Lead, SPARC Tropopause Initiative, 2006-2010
 Co-Coordinator, SPARC Chemistry-Climate Model Validation Project, 2005-2012
 Contributing Author, Chapter 6, World Meteorological Organization Ozone Assessment 2006
 American Meteorological Society Middle Atmosphere Committee, 2004-2007
 AGU Atmospheric Sciences Section, Communications Secretary 2003-2006
 Journal of the Atmospheric Sciences Editor's award, 2004
 Lead Author for Stratospheric Processes and their Role in Climate (SPARC), Assessment of water
 vapour in the lower stratosphere and upper troposphere, 1999-2000

REVIEWS/CONFERENCE ORGANIZATION

Reviews of outside proposals/papers: 2003:13, 2004:26, 2005:19, 2006:26, 2007:27, 2008:18,
 2009:17, 2010:16, 2011:12, 2012:16, 2013:19, 2014: 25, 2015: 27, 2016: 25, 2017: 23, 2018: 22
 2019: 25, 2020: 10
 Organizer, Tutorial & Workshop on Future Physics for Global Atmospheric Models, July 2019
 Chair, Gordon Research Conference on Climate and Radiation, July 2019
 Local Organizer/Host, Cloud Feedback Model Intercomparison Project, Annual Meeting, Oct 2018
 Local Organizer/Host, International Radiation Sensor Science Team Meeting, September 2018
 Organizer, Modeling Aerosol Cloud Interactions, 8th Conference on Aerosol-Cloud Interactions, New
 Orleans, LA, January 2016
 Program Committee, Chemistry-Climate Model Initiative Meeting, Rome, October 2015
 Local Organizer, 2013 CCMi Workshop, Boulder, CO, May 2013
 Organizer, Joint U.S.-Japan workshop on Observations of the Tropical Tropopause Layer, Honolulu,
 HI, October 2012
 Local Organizing Committee, 2012 CCMVal Workshop, Davos, Switzerland, May 2012
 Organizing committee, WAVACS, Workshop on Water Vapor, Paris, September 2011
 Organizing committee and Lecturer, WAVACS, Winter School, Venice, Italy, February 2011
 Steering Committee, Emerging Paradigms in the UTLS Workshop, October, 2009
 Program Committee, Chemistry-Climate Model Validation Meeting, Toronto, June 2009
 Session co-convenor, EGU Session on the Tropopause, April 2008
 Convener, Microphysics Panel, Aviation-Climate Change Research Initiative Meeting, February 2008
 Co-Chair, 14th AMS Middle Atmosphere Meeting, Portland, OR, August 2007
 Program Committee, Chemistry-Climate Model Validation Meeting, Leeds, UK, June 2007
 Program Committee, IGAC Atmospheric Chemistry at the Interfaces Meeting, Capetown, Sept 2006
 Organizer, Workshop on Advancing Microphysics in Global Models, Boulder, CO, Nov 2005
 Chair, Local Organizing Committee, Chemistry-Climate Model Validation Meeting, Boulder, 2005

Program Committee, 13th AMS middle atmosphere meeting, 2005

Co-Organizer of Workshop on Isotopes in the Earth System, Boulder, CO, Jan 2004

Organizer of 2 workshops on Summer Monsoon water vapor, Boulder, CO Oct 2001 & Sep 2002

FUNDING AWARDED

DOE ASR Research Grant, Freezing Processes in Southern Ocean Mixed Phased Clouds, 2019-2022

NOAA Research Grant (NCAR PI), An Open Framework for Process-Oriented Diagnostics of Global Models, 2018-2021

NSF Polar Programs Grant (NCAR PI), Collaborative Research: Ice Supersaturation over the Southern Ocean and Antarctica, and its role in Climate

NSF Grant (NCAR PI): Collaborative Research: Southern Ocean Clouds, Radiation, Aerosol Transport Experimental Study (SOCRATES), 2017-2020

NASA Research Grant, Advancing Cloud Microphysics for Seamless Prediction of Weather and Climate, 2017-2021

NOAA Research Grant, Tropical Intraseasonal Variability in Models and Observations, 2015-2018

NASA Research Grant, Advancing Cloud Microphysics in Global Models: Processes and the Challenge of High Resolution, 2014-2015

FAA Research Grant, Future Aviation Climate Impacts, 2013-2014

DOE Research Grant: Atmospheric System Research, Advancing Models and Evaluation of Cumulus, Climate and Aerosol Interactions, 2011-2014

NASA Research Grant, Utilizing NASA A-Train Datasets for IPCC Climate Projection Assessment 2011-2013

NSF Research Grant, Simulations of Anthropogenic Climate Change Using a Multi-Scale Modeling Framework, 2010-2015

NSF Research Grant, Collaborative Research: Cloud Macrophysical Parameterization and its Application to Aerosol Indirect Effects, 2010-2013

NASA Research Grant, Airborne Tropical Tropopause Experiment, 2010-2015

NSF/DOE Research Grant, Community Climate System Model Tutorial, 2010

NASA Research Grant, Observing and Modeling Cloud Influence on Recent and Projected Arctic Sea Ice Loss, 2010-2013

FAA Research Grant, Aviation Climate Impacts, 2010-2013

NSF SGER Grant, Community Atmosphere Model Tutorial, 2009

NASA Research Grant, Advanced Bin Microphysics in a Global Model (co-I), 2009-2013

NASA Research Grant, Advancing Cold Cloud Physics in Global Models, PI, 2009-2013

NSF SGER Grant, (ANT) Humidity and Ice Supersaturation Observations at South Pole Station 2008

NASA Research Grant, Confronting Chemistry Climate Models with Data, PI, 2008-2011

NASA Research Grant, Polar Mesospheric Clouds, Co-I, 2006-2009

NSF SGER Grant Advancing Cloud Microphysics in the Community Climate System Model, PI 2005

NASA Research Grant: Observations & Modeling of the Tropical Radiation Balance, Co-I 2004-7

NCAR Strategic Initiative: Integrative Science in the UT/LS, Co-I 2004-7

NASA Research Grant: Integrated Investigations of Water, Clouds & Temperatures, Co-I 2004-7

NSF SGER Grant for Workshop on Isotopes in the Earth System, PI 2003

NASA Research Grant: Stratosphere Troposphere Exchange of Water Vapor, Co-I 2001-2004

NCAR Advanced Study Program Postdoctoral Fellowship, 1999-2001

Graduate and Postdoctoral Advising:

Thesis committees: Ray Nassar (U Waterloo Canada, Peter Bernath Advisor, 2008), Qiong Yang (U. Washington Seattle, Qiang Fu advisor, 2010), Lin Su (University of Colorado, O. B. Toon advisor, 2012), Nathalie Schaller (ETH-Zurich, Reto Knutti Advisor, 2012), Anna Cristan (ETH-Zurich, Thomas Peter Advisor, 2012), Miriam Kuebbler (ETH-Zurich, Ulrike Lohmann Advisor, 2012), Sambingo Cardoso (Univ. Lisbon, Pedro Miranda advisor, 2013), Pengfei Yu (Univ. Colorado, Brain

CV: Andrew Gettelman

8/13/20

Toon advisor, 2015), Lei Lin (Lanzhou Univ, Q. Fu advisor, 2016), Vineel Kumar (CU, J. Kay advisor, 2018), A. Morrison (CU, J. Kay advisor, 2019), B. Berry (U. Utah, J. Mace advisor, 2019)

Postdocs: Hugh Morrison (NCAR), Jen Kay (NCAR), Chuck Bardeen (NCAR), Jason English (NCAR), Lin Su (NCAR), Christina McClusky (NCAR)

PUBLICATIONS**Publications in Press**

182. A. DuVivier, M. Holland, J. E. Kay, S. Tilmes, D. Balley and A. Gettelman Arctic and Antarctic sea ice mean state in the Community Earth System Model Version 2 and the influence of atmospheric chemistry, *J. Geophys. Res. Oceans* doi:10.1029/2019JC015934, 2020
181. Dunne, J. Dunne, John P. , Michael Winton, Julio Bacmeister, Gokhan Danabasoglu, Andrew Gettelman, Jean-Christophe Golaz, Cecile Hannay, Gavin A. Schmidt, John P. Krasting, L. Ruby Leung, Larissa Nazarenko, Lori T. Sentman, Ronald J. Stouffer, Jonathan D. Wolfe Comparison of equilibrium climate sensitivity estimates from slab ocean, 150-year, and longer simulations, in Press, *J. Geophys. Res.* doi: 10.1029/2020GL088852, 2020
180. Heymsfield, A. H., C. Drews, C. C. Chen and A. Gettelman, Contributions of the Liquid and Ice Phases to Global Surface Precipitation: Observations and Global Climate Modeling, In Press, *J. Atmos. Sci.* DOI: 10.1175/JAS-D-19-0352.1, 2020
179. I. R. Simpson, J. Bacmeister, R. B. Neale, C. Hannay, A. Gettelman, R. R. Garcia, P. H. Lauritzen, D. R. Marsh, M. J. Mills, B. Medeiros, J. H. Richter, An evaluation of the large scale atmospheric circulation and its variability in the Community Earth System Model 2 (CESM2) and other CMIP models, in press *J. Geophys. Res. Atmospheres*, doi: 10.1029/2020JD032835, 2020
178. B. Berry; G. Mace; A. Gettelman ,Using A-Train Observations to Evaluate East Pacific Cloud Occurrence and Radiative Effects in the Community Atmosphere Model, *in Press, J. Climate* 2020
177. Lenaerts, J. Et al, Impact of cloud physics on the Greenland Ice Sheet near-surface climate: a study with the Community Atmosphere Model, *J. Advances in Modeling Earth Sys.*, doi: 10.1029/2019JD031470, 2020
176. Louisa K. Emmons, Rebecca H. Schwantes, John J. Orlando, Geoff Tyndall, Douglas Kinnison, Jean-François Lamarque, Daniel Marsh, Michael J. Mills, Simone Tilmes, Charles Bardeen, Rebecca R. Buchholz, Andrew Conley, Andrew Gettelman, Rolando Garcia, Isobel Simpson, Donald R. Blake, Simone Meinardi, Gabrielle Pétron, The Chemistry Mechanism in the Community Earth System Model version 2 (CESM2), in press, *J. Adv. Modeling Earth Sys.*, doi:10.1029/2019MS001882, 2020
175. N. G. Loeb, H. Wang, R. Allan, T. Andrews, K. Armour, J. N. S. Cole, J.-L. Dufresne, P. Forster, A. Gettelman, T. Mauritsen, Y. Ming, D. Paynter, C. Proistosescu, M. F. Stuecker, U. Willén, K. Wyser, New Generation of Climate Models Track Recent Unprecedented Changes in Earth's Radiation Budget Observed by CERES, in Press, *Geophys. Res. Lett.*, doi:10.1029/ 2019GL086705, 2020
174. I. H. H. Karset, A. Gettelman, T. Storelvmo, K. Alterskjær, T. K. Berntsen, Exploring Impacts of Size-Dependent Evaporation and Entrainment in a global model, in Press, *J. Geophys. Res. Atmos.*, doi: 0.1029/2019JD031817, 2020
- 173: Danabasoglu, G. et al, The Community Earth System Model version 2 (CESM2), in Press, *J. Adv. Modeling Earth Systems*, doi: 10.1029/2019MS001916, 2020
172. Y.-H. Kuo, J. D. Neelin, C.-C. Chen, W.-T. Chen, L. J. Donner, A. Gettelman, X. Jiang, K.-T. Kuo, E. Maloney, C. R. Mechoso, Y. Ming, K. A. Schiro, C. J. Seman, H.-M. Wu, AND M. Zhao, Convective Transition Statistics over Tropical Oceans for Climate Model Diagnostics: GCM Evaluation, in press, *J. Atmos. Sci.*, doi: 10.1175/JAS-D-19-0132.1, 2020

Scientific Publications

171. Loeb, Norman G., Fred G. Rose, Seiji Kato, David A. Rutan, Wenying Su, Hailan Wang, David R. Doelling, William L. Smith, and Andrew Gettelman. "Toward a Consistent Definition between

- Satellite and Model Clear-Sky Radiative Fluxes.” *Journal of Climate* 33, no. 1 (January 1, 2020): 61–75. <https://doi.org/10.1175/JCLI-D-19-0381.1>.
170. Fu, Q., White, R. H., Wang, M., Alexander, B., Solomon, S., Gettelman, A., et al. (2020). The Brewer-Dobson circulation during the Last Glacial Maximum. *Geophysical Research Letters*, 47, e2019GL086271. <https://doi.org/10.1029/2019GL086271>
169. Tilmes, S., A. Hodzic, L. K. Emmons, M. J. Mills, A. Gettelman, D. E. Kinnison, M. Park, et al. 2019. “Climate Forcing and Trends of Organic Aerosols in the Community Earth System Model (CESM2).” *Journal of Advances in Modeling Earth Systems* <https://doi.org/10.1029/2019MS001827>.
168. Lin, L., Gettelman, A., Xu, Y., Wu, C., Wang, Z., Rosenbloom, N., Bates, S. C., and Dong, W.: CAM6 simulation of mean and extreme precipitation over Asia: sensitivity to upgraded physical parameterizations and higher horizontal resolution, *Geosci. Model Dev.*, 12, 3773–3793, <https://doi.org/10.5194/gmd-12-3773-2019>, 2019.
167. Gettelman, A., M. J. Mills, D. E. Kinnison, R. R. Garcia, A. K. Smith, D. R. Marsh, S. Tilmes, F. Vitt, C. G. Bardeen, J. McInerney, H.-L. Liu, S. C. Solomon, L. M. Polvani, L. K. Emmons, J.-F. Lamarque, J. H. Richter, A. S. Glanville, J. T. Bacmeister, A. S. Phillips, R. B. Neale, I. R. Simpson, A. K. DuVivier, A. Hodzic, W. J. Randel, “The Whole Atmosphere Community Climate Model version 6 (WACCM6)”, , *J. Geophys. Res. Atmos.*, doi: 10.1029/2019JD030943, 2019
166. B. Berry; G. Mace; A. Gettelman, “Using A-Train observations to evaluate cloud occurrence and radiative effects in the Community Atmosphere Model during the Southeast Asia summer monsoon”, *J. Climate*, 2019.
165. Bellouin, N., J. Quaas, E. Gryspeerdt, S. Kinne, P. Stier, D. Watson-Parris, O. Boucher, K.S. Carslaw, M. Christensen, A.-L. Daniau, J.-L. Dufresne, G. Feingold, S. Fiedler, P. Forster, A. Gettelman, J. M. Haywood, F. Malavelle, U. Lohmann, T. Mauritsen, D.T. McCoy, G. Myhre, J. Mülmenstädt, D. Neubauer, A. Possner, M. Rugenstein, Y. Sato, M. Schulz, S. E. Schwartz, O. Sourdeval, T. Storelvmo, V. Toll, D. Winker, and B. Stevens “Bounding global aerosol radiative forcing of climate change”, *Rev. Geophys.*, 2019
164. Naud, C. , J. Booth, J. Jeyaratnam, A. Gettelman and M. Zhao, “Evaluation of modeled precipitation in oceanic extratropical cyclones using IMERG”, in press, *J. Climate* 2019
163. Gryspeerdt, E., Mülmenstädt, J., Gettelman, A., Malavelle, F. F., Morrison, H., Neubauer, D., Partridge, D. G., Stier, P., Takemura, T., Wang, H., Wang, M., and Zhang, K.: Surprising similarities in model and observational aerosol radiative forcing estimates, *Atmos. Chem. Phys.*, doi:10.5194/acp-2019-533, 2019.
162. Gettelman, A., C. Hannay, J. T. Bacmeister, R. B. Neale, A. G. Pendergrass, G. Danabasoglu, J.-F. Lamarque, J. T. Fasullo, D. A. Bailey, D. M. Lawrence, M. J. Mills, High Climate Sensitivity in the Community Earth System Model version 2 (CESM2), *Geophys. Res. Lett.* DOI: 10.1029/2019GL083978, 2019
161. Gettelman, A., J. E. Truesdale, J. T. Bacmeister, P. M. Caldwell, R. B. Neale, P. A. Bogenschutz, and I. R. Simpson. “The Single Column Atmosphere Model Version 6 (SCAM6): Not a Scam but a Tool for Model Evaluation and Development.” *Journal of Advances in Modeling Earth Systems*, 2019. <https://doi.org/10.1029/2018MS001578>.
160. Gettelman, A., H. Morrison, K. Thayer-Calder, and C. M. Zarzycki. “The Impact of Rimed Ice Hydrometeors on Global and Regional Climate.” *Journal of Advances in Modeling Earth Systems*, 2019. <https://doi.org/10.1029/2018MS001488>.
159. Randall, D.A, Cecilia M. Bitz; Gokhan Danabasoglu; A. Scott Denning; Peter Gent; Andrew Gettelman; Stephen Griffies; Peter Lynch; Hugh Morrison; Robert Pincus and John Thuburn. 100

- Years of Earth System Model Development, *Meteorological Monographs* 59 (January 1, 2019): 12.1-12.66. <https://doi.org/10.1175/AMSMONOGRAPHS-D-18-0018.1>.
158. Witte, Mikael K., Hugh Morrison, Jørgen B. Jensen, Aaron Bansemer, and Andrew Gettelman. "On the Covariability of Cloud and Rain Water as a Function of Length Scale." *Journal of the Atmospheric Sciences* 76, no. 8 (May 16, 2019): 2295–2308. <https://doi.org/10.1175/JAS-D-19-0048.1>.
157. Gettelman, A, H. Morrison and G. Thompson. Cloud Microphysics Across Scales for Weather and Climate, in *Current Trends in the Representation of Physical Processes in Weather and Climate Models*, D. A. Randall Editor, Springer, 2019
156. Christopher S. Bretherton; Isabel L. McCoy; Johannes Mohrmann; Robert Wood; Virendra Ghatge; Andrew Gettelman; Charles Bardeen; Bruce A. Albrecht; Paquita Zuidema, "Cloud, Aerosol and Boundary Layer Structure across the Northeast Pacific Stratocumulus-Cumulus Transition as observed during CSET". *Mon. Wea. Rev.*, 147, 2083-2103, <https://doi.org/10.1175/MWR-D-18-0281.1>, 2019.
155. E. Gryspeerd, T. Goren., O. Sourdeval, J. Quaas, J. Mülmenstädt, S. Dipu, C. Unglaub, A. Gettelman, and M. Christensen, Constraining the aerosol influence on cloud liquid water path, *Atmos. Chem. Phys.*, 19, 5331-5347, 2019, doi: 10.5194/acp-19-5331-2019
154. Schmidt, A., M. J. Mills, S. Ghan, J. M. Gregory, R. P. Allan, T. Andrews, C. G. Bardeen, A. Conley, P. M. Forster, A. Gettelman, R. W. Portmann, S. Solomon, and O. B. Toon Volcanic radiative forcing from 1979 to 2015, in Press *J. Geophys. Res.* doi: 10.1029/2018JD028776
153. Zhang, H., M. Wang, Z. Guo, C. Zhou, T. Zhou, Y. Qian, V. E. Larson, S. Ghan, M. Ovchinnikov, P. A. Bogenschutz, A. Gettelman, Low-cloud feedback in CAM5-CLUBB: physical mechanisms and parameter sensitivity analysis, in Press, JAMES, doi: 10.1029/2018MS001423
152. Genthon, C., R. Forbes, E. Vignon, A. Gettelman and J-B. Madeleine Comment on "Surface air relative humidities spuriously exceeding 100% in CMIP5 model output and their impact on future projections" by Ruosteenoja, Jylhä, Räisänen and Mäkelä [2017] *J. Geophys. Atmos.* doi: 10.1029/2017JD028111
151. Lauritzen, P. H., Nair, R. D., Herrington, A. R., Callaghan, P., Goldhaber, S., Dennis, J. M., J. T. Bacmeister, B. E. Eaton, C. M. Zarzycki, Mark A. Taylor, P. A. Ullrich, T. Dubos, A. Gettelman, R. B. Neale, B. Dobbins, K. A. Reed, C. Hannay, B. Medeiros, J. J. Benedict, and J. J. Tribbia. NCAR release of CAM-SE in CESM2.0: A reformulation of the spectral element dynamical core in dry-mass vertical coordinates with comprehensive treatment of condensates and energy. *Journal of Advances in Modeling Earth Systems*, 10, 1537–157, doi: 10.1029/2017MS001257, 2018
150. Gettelman A., Callaghan P., Larson V. E., Zarzycki C. M., Bacmeister J., Lauritzen P. H., Bogenschutz P. A., and Neale R. "Regional Climate Simulations With the Community Earth System Model." *Journal of Advances in Modeling Earth Systems* (March 25, 2018). <https://doi.org/10.1002/2017MS001227>.
149. O'Neill, Brian C., and Andrew Gettelman. "An Introduction to the Special Issue on the Benefits of Reduced Anthropogenic Climate change (BRACE)." *Climatic Change* 146, no. 3–4 (February 1, 2018): 277–85. <https://doi.org/10.1007/s10584-017-2136-4>.
148. Bogenschutz, P. A., A. Gettelman, C. Hannay, V. E. Larson, R. B. Neale, C. Craig, and C.-C. Chen. "The Path to CAM6: Coupled Simulations with CAM5.4 and CAM5.5." *Geosci. Model Dev.* 11, no. 1 (January 17, 2018): 235–55. <https://doi.org/10.5194/gmd-11-235-2018>.

147. Mills, M. J., Richter, J. H., Tilmes, S., Kravitz, B., MacMartin, D. G., Glanville, A. A., Tribbia, J., Lamarque, J. F., Vitt, F., Schmidt, A., Gettelman, A., Hannay, C., Bacmeister, J. T., Kinnison, D. E. (2017). Radiative and chemical response to interactive stratospheric sulfate aerosols in fully coupled CESM1(WACCM). *Journal of Geophysical Research: Atmospheres*, 122. <https://doi.org/10.1002/2017JD027006>
146. Moldwin, Mark B., Fabio Florindo, Gregory Okin, Alan Robock, Eelco J. Rohling, Bayani Cardenas, Annmarie Carlton, Andrew Gettelman, et al. "Why and How to Write a High-Impact Review Paper: Lessons From Eight Years of Editorial Board Service to Reviews of Geophysics." *Reviews of Geophysics*, n.d., 2017RG000587. <https://doi.org/10.1002/2017RG000587>.
145. Zhao, Xi, Yanluan Lin, Yiran Peng, Bin Wang, Hugh Morrison, and Andrew Gettelman. "A Single Ice Approach Using Varying Ice Particle Properties in Global Climate Model Microphysics." *Journal of Advances in Modeling Earth Systems*, 2017. doi:10.1002/2017MS000952.
144. Zheng, X., S. A. Klein, H.-Y. Ma, P. Caldwell, V. E. Larson, A. Gettelman, and P. Bogenschutz. "A Cloudy Planetary Boundary Layer Oscillation Arising from the Coupling of Turbulence with Precipitation in Climate Simulations." *Journal of Advances in Modeling Earth Systems*, n.d., n/a-n/a. doi:10.1002/2017MS000993.
143. Cameron, M. A., M. Z. Jacobson, S. R. H. Barrett, H. Bian, C. C. Chen, S. D. Eastham, A. Gettelman, et al. "An Intercomparative Study of the Effects of Aircraft Emissions on Surface Air Quality." *Journal of Geophysical Research: Atmospheres*, August 5, 2017. doi:10.1002/2016JD025594.
142. O'Neill, Brian C., James M. Done, Andrew Gettelman, Peter Lawrence, Flavio Lehner, Jean-Francois Lamarque, Lei Lin, et al. "The Benefits of Reduced Anthropogenic Climate change (BRACE): A Synthesis." *Climatic Change*, July 26, 2017, 1–15. doi:10.1007/s10584-017-2009-x.
141. Wu, C., X. Liu, M. Diao, K. Zhang, A. Gettelman, Z. Lu, J. E. Penner, and Z. Lin. "Direct Comparisons of Ice Cloud Macro- and Microphysical Properties Simulated by the Community Atmosphere Model Version 5 with HIPPO Aircraft Observations." *Atmos. Chem. Phys. Discuss.* 2017 (January 16, 2017): 1–57. doi:10.5194/acp-2016-1106.
140. Gettelman, A., D. N. Bresch, C. C. Chen, J. E. Truesdale, and J. T. Bacmeister. "Projections of Future Tropical Cyclone Damage with a High-Resolution Global Climate Model." *Climatic Change*, March 3, 2017, 1–11. doi:10.1007/s10584-017-1902-7.
139. Witmer, Frank DW, Andrew M Linke, John O'Loughlin, Andrew Gettelman, and Arlene Laing. "Subnational Violent Conflict Forecasts for Sub-Saharan Africa, 2015–65, Using Climate-Sensitive Models." *Journal of Peace Research* 54, no. 2 (March 1, 2017): 175–92. doi:10.1177/0022343316682064.
138. Heymsfield, Andrew, Martina Krämer, Norman B. Wood, Andrew Gettelman, Paul R. Field, and Guosheng Liu. "Dependence of the Ice Water Content and Snowfall Rate on Temperature, Globally: Comparison of in Situ Observations, Satellite Active Remote Sensing Retrievals, and Global Climate Model Simulations." *Journal of Applied Meteorology and Climatology* 56, no. 1 (2017): 189–215. doi:10.1175/JAMC-D-16-0230.1.
137. Eidhammer, Trude, Hugh Morrison, David Mitchell, Andrew Gettelman, and Ehsan Erfani. "Improvements in Global Climate Model Microphysics Using a Consistent Representation of Ice Particle Properties." *Journal of Climate*, October 14, 2016. doi:10.1175/JCLI-D-16-0050.1.

136. Gettelman, A., and S. C. Sherwood. "Processes Responsible for Cloud Feedback." *Current Climate Change Reports*, October 1, 2016, 1–11. doi:10.1007/s40641-016-0052-8.
135. Hourdin, Frederic, Thorsten Mauritsen, Andrew Gettelman, Jean-Christophe Golaz, Venkatramani Balaji, Qingyun Duan, Doris Folini, et al. "The Art and Science of Climate Model Tuning." *Bulletin of the American Meteorological Society*, July 29, 2016. doi:10.1175/BAMS-D-15-00135.1.
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