

293-1: Climate change, climate models and the role of climate scientists in the public discourse

Mon: Climate science basics: radiative transfer, moist processes, general circulation, paleo-climate

Tue: Climate modeling: history, practicalities, philosophy, successes, challenges, attribution and projections

Wed: Why climate change is politicized. Communication strategies/approaches

Thu: Challenges in science policy. Improving science for policy purposes

Fri: Finding ways forward that work.

Readings:

Climate Change: Picturing the Science (Schmidt and Wolfe), W. W. Norton 2009.

E-version

here: https://www.dropbox.com/s/wgtdclloh0grxcw/CC_Picturing_the_Science.pdf?dl=0

Schmidt, G.A., 2010: Enhancing the relevance of palaeoclimate model/data comparisons for assessments of future climate change. *J. Quat. Sci.*, **25**, 79-87, doi:10.1002/jqs.1314.

Shindell, D., J.C.I. Kuylensstierna, E. Vignati, R. van Dingenen, M. Amann, Z. Klimont, S.C. Anenberg, N. Muller, G. Janssens-Maenhout, F. Raes, J. Schwartz, G. Faluvegi, L. Pozzoli, K. Kupiainen, L. Höglund-Isaksson, L. Emberson, D. Streets, V. Ramanathan, K. Hicks, N.T.K. Oanh, G. Milly, M. Williams, V. Demkine, and D. Fowler, 2012: Simultaneously mitigating near-term climate change and improving human health and food security. *Science*, **335**, 183-189, doi:10.1126/science.1210026.

Schmidt, G.A., J.D. Annan, P.J. Bartlein, B.I. Cook, E. Guilyardi, J.C. Hargreaves, S.P. Harrison, M. Kageyama, A.N. LeGrande, B. Konecky, S. Lovejoy, M.E. Mann, V. Masson-Delmotte, C. Risi, D. Thompson, A. Timmermann, L.-B. Tremblay, and P. Yiou, 2014: Using paleo-climate comparisons to constrain future projections in CMIP5. *Clim. Past*, **10**, 221-250, doi:10.5194/cp-10-221-2014.

Schmidt, G.A., 2015: What should climate scientists advocate for? *Bull. Atom. Sci.*, **71**, no. 1, 70-74, doi:10.1177/0096340214563677.

Schmidt, G.A., and S. Sherwood, 2015: A practical philosophy of complex climate modelling. *Eur. J. Phil. Sci.*, **5**, no. 2, 149-169, doi:10.1007/s13194-014-0102-9.