

Biography for Douglas MacMartin

Douglas MacMartin is a Senior Research Associate and Senior Lecturer in the Sibley School of Mechanical and Aerospace Engineering at Cornell University, and also a Visiting Scientist in the Department of Computing and Mathematical Sciences at the California Institute of Technology. Prior to his appointment at Cornell, he was a Research Professor at Caltech. From 1994 to 2000 he worked for United Technologies Research Center where he led the Active Control research activities. He holds a Ph.D. in Aeronautics and Astronautics from the Massachusetts Institute of Technology (1992), and a B.A.Sc. from the University of Toronto in Engineering Science (1987). He is a member of the American Geophysical Union and an Associate Fellow of the American Institute for Aeronautics and Astronautics.

While his original training is as an aerospace engineer, he has been working as a climate scientist since roughly 2002, and has been researching geoengineering since 2006. He has 61 peer-reviewed publications including 24 in geoengineering and another 10 in climate science (the rest in more traditional engineering fields), as well as 73 conference papers, 2 book chapters, and 5 patents. In 2017 he was co-chair of the first Gordon Research Conference on Climate Engineering, and he will be a chair (with Trude Storelvmo) of the second conference in 2020. He is also on the Board of Advisors for the Forum for Climate Engineering Assessment at American University, an informal international advisor for the climate engineering program at Beijing Normal University, and was a member of the Advisory Group for the second international Climate Engineering Conference (CEC17) in Berlin.

The combination of an engineering background and climate science gives him a unique perspective in the field of geoengineering, and he has published on dynamics, the use of feedback to manage uncertainty, treating geoengineering as a design problem, and uncertainty in geoengineering, among other contributions.