

Author Correction: Adaptive emission reduction approach to reach any global warming target

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Shortly after the publication of this article, we were made aware that another adaptive approach that also aims at converging to a given temperature level had been published before (Goodwin, P. et al. Adjusting mitigation pathways to stabilize climate at 1.5° C and 2.0° C rise in global temperatures to year 2300. *Earth's Future* **6**, 601–615 (2018)). We and the reviewers were not aware of this study at the time of publication. We also now include two references to an earlier approach to temperature stabilization (Zickfeld, K., Eby, M., Matthews, H. D. & Weaver, A.J. Setting cumulative emissions targets to reduce the risk of dangerous climate change. *Proc. Natl Acad. Sci. USA* **106**, 16129–16134 (2009); Zickfeld, K. et al. Long-term climate change commitment and reversibility: an EMIC intercomparison. *J. Clim.* **26**, 16, 5782–5809 (2013)). These are now cited in the Discussion text reading “...This advances previous work (refs. 72–74) on temperature stabilization and Adjusting Mitigation Pathways.”

While space in the article does not permit, the third from last paragraph of the Discussion should read as follows: “Two approaches for temperature stabilization have been proposed earlier. First, Zickfeld et al. (2009, 2013) prescribe temperature trajectories and adjust the CO₂ emissions each year if the simulated temperature diverges from the prescribed trajectory. However, this leads to unrealistic large and rapid fluctuations in annual CO₂ emissions. Second, Goodwin et al. (2018) proposed the Adjusting Mitigation Pathways, which resembles the AERA in design but does not include observations before 2003 or adaptive emissions of non-CO₂ radiative agents, which are crucial for ambitious temperature targets such as 1.5 or 2 °C and allows policymakers to trade between non-CO₂ and CO₂ emission reductions at each stocktake. With the Adjusting Mitigation Pathways only 68% of the simulations converge to the temperature target within ±0.25 °C, and global temperature is not always stabilized. In contrast, all simulations using the AERA converge to the temperature target within ±0.09 °C in 2150, with 68% of the simulations within ±0.02 °C, and temperature remains stabilized after 2150. The precise convergence to the target makes the AERA suitable for use with Earth System Models.”

We now reference these studies in the HTML and PDF versions of the article.

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