



The High, High Cost of Academic Air Travel



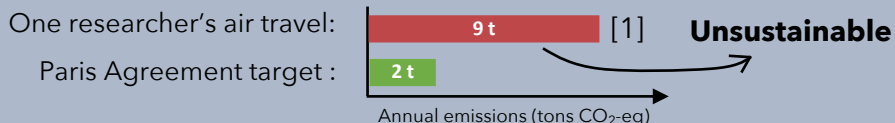
undergraduate
poster showcase

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Why is it problematic that researchers fly so much?

- Causes up to **84%** of the carbon footprint of academic research [1].
- **>40%** of distance travelled is for conference attendance [2].
- Harms the credibility of climate scientists [3].



Why do researchers attend so many conferences?

- Networking
- Disseminating results
- Enhancing CV
- Traveling is fun!



International conferences are an integral part of the modern academic culture.

Resolutions to tackle this **effectively** and **realistically** :

1 Sensitize the community

Normalizing the discourse on air travel reduction
Monitoring emissions
Decision tree



[4, 5]

2 Switch to land transport



3 Choose worthwhile conferences

Air travel has a **limited influence** on academic success [6, 7].

4 Mitigate the impact

Direct flights
Economy class

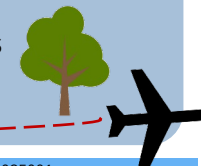
GHG emissions can be reduced by **36%** without affecting mobility [8].

5 Rethink conferences

Virtual attendance emits 97-3000x less [9].
Also increases diversity [10, 11].

6 Offset **only** as a last resort

Questionable effectiveness and reliability [12, 13].



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- [1] Arsenault, J. et al. (2019). The environmental footprint of academic and student mobility in a large research-oriented university. *Environmental Research Letters*, 14(9), 095001.
 [2] Blanchard, M. et al. (2021). Enquête #1: « Les personnels de la recherche face au changement climatique », *Labo 1point5*, <https://labos1point5.org/les-enquetes/enquete1-resultat>
 [3] Attari, S.Z. et al. E.U. Statements about climate researchers' carbon footprints affect their credibility and the impact of their advice. *Climatic Change* **138**, 325-338 (2016). [4] Kreil, A. S. (2021). Does flying less harm academic work? Arguments and assumptions about reducing air travel in academia. *Travel Behaviour and Society*, 25, 52-61.
 [4] Le Quéré, C. et al. Towards a culture of low-carbon research for the 21st century, <https://tyndall.ac.uk/about/travel-strategy/>, working document consulted on January 11 2023.
 [5] Kreil, A. S. (2021). Does flying less harm academic work? Arguments and assumptions about reducing air travel in academia. *Travel Behaviour and Society*, 25, 52-61.
 [6] Chalvatzis, K., & Ormosi, P. L. (2020). The carbon impact of flying to economics conferences: is flying more associated with more citations?. *Journal of Sustainable Tourism*, 29(1), 40-67.
 [7] Wynnes, S. et al. (2019). Academic air travel has a limited influence on professional success. *Journal of cleaner production*, 226, 959-967.
 [8] Ciers, J. et al. (2018). *Carbon Footprint of Academic Air Travel: A Case Study in Switzerland*, Sustainability, MDPI, Open Access Journal, vol.11(1), 8p.
 [9] Jäckle, S. (2021). Reducing the Carbon Footprint of Academic Conferences by Online Participation: the Case of the 2020 Virtual European Consortium for Political Research General Conference. *PS: Political Science & Politics*, 54(3), 456-461.
 [10] Skiles, M., Yang, E., Reshef, O. et al. (2022). Conference demographics and footprint changed by virtual platforms. *Nat Sustain* **5**, 149-156.
 [11] Skiles, M., Yang, E., Reshef, O. et al. (2022). Conference demographics and footprint changed by virtual platforms. *Nat Sustain* **5**, 149-156.
 [12] Struck, D. (2010). Buying carbon offsets may ease eco-guilt but not global warming. *The Christian Science Monitor*.
 [13] Direction générale de l'action pour le climat (DG CLIMA). (2017). On 3 April 2017 the European Commission will release verified EU ETS emissions data and compliance information for 2016. *Commission européenne*. https://climate.ec.europa.eu/news-your-voice/news/3-april-2017-european-commission-will-release-verified-eu-ets-emissions-data-and-compliance-2017-03-10_fr