Assessment of the global environmental impact of supersonic aviation using the GEOS-Chem adjoint

Set of physical and financially feasible airport pairs

Aviation Emissions Inventory Code

Stratospheric sensitivities

Impact of interest

Supersonic fleet emissions

UCX adjoint

UCX forward model

Aviation Emissions Inventory Code

E_{i,j,k}

E_{i,j,k,t}^{E,\text{met}}

\frac{\partial C}{\partial E}

\text{checkpoints}

Irene Dedoussi et al.
Poster C.19

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Pictures from: https://www.nasa.gov/aero/centers_tackle_sonicBoom.html