Systematic Analysis of Climate Metrics

Section: Aircraft Noise & Climate Effects Chair: Climate Effects of Aviation vgrewe@tudelft.nl

Supervisors

Dr. Abhishek Sahai/ Prof. Dr. Volker Grewe

Project Overview

Aviation contributes to climate change in the order of 5%. The evaluation of technical or operational mitigation measures largely depends on the chosen climate metric used. Currently, there is no consensus on which metric is best suited.

A good understanding on the impact of the metric choice, including aspects of emission scenarios, time horizon, and reference scenario is required. What metric is best suited for for which climate objective? Which parameter has lottle or large impacts on the climate assessment of technologies?

Using the climate-chemistry response model AirClim, various scenarions will be anlysed to systematically investigate climate metrics.

Project Goals

Systematic analysis of climate metrics:

- Overview on climate metrics
- Relation of climate objectives and climate metrics
- Identification of sensible parameters
- Relation of the importance of emissions and climate metrics
- Recommendation of climate metrics for climate impact assessments, mitigation scenarios and market based measures





