

This project will use re-analysis increments and A-GCM initial tendency errors to estimate temporal variations/trends in the radiative forcing of climate over the last decades.

SCIENTIFIC/TECHNICAL OBJECTIVES

1. To estimate the magnitude of temporal changes/variations in radiative forcing of the climate system over the recent decades. Two different techniques will be used to determine the forcing:

1.A) Initial tendency errors obtained during assimilation of the slow normal modes obtained from ECMWF re-analyses into a state-of-the-art climate model.

1.B) 6 and 24 hour forecast errors, i.e. forecast increments in ECMWF and NASA re-analyses.

2. To compare both the timing and the magnitude of the detected forcing anomalies with known and hypothesized variations in radiative forcing.

3. To detect global warming, if any, and its causes over the recent decades using the planned 40-years ECMWF re-analysis and estimated radiative forcing for that period.

For more informations please visit the project homepage

<http://www.mpimet.mpg.de/Depts/Modell/GCMErrAna/DETECT/>