This directory contains the code for one particular sensitivity analysis of the planets simulation:

Name: SA30 - cyclical external forcings

Description: As well as being subjected to random instantaneous perturbations, the Earth also experiences periodic fluctuations in the amount of solar heat it receives (Milankovitch cycles), and most likely is affected also by some longer period oscillating forcings, such as supercontinent assembly/break-up due to plate tectonics. This is implemented by adding a random number of both short period and long period extra terms to the ODE for planetary temperature. For each one, the term added to the ODE is where each is the randomly-determined magnitude of each cyclical forcing and t is time.

The following files were altered in order to implement this sensitivity analysis:

initialise\_master.m

initialise\_slave.m

initialise\_analyser.m

ts\_master.m

ts\_slave.m

array\_transfers.m

determine\_cycles.m

set\_constants.m

planets\_ODE.m

calc\_planet\_properties.m

calc\_planet\_freqs.m

plot\_scatterplots.m