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

Name: SA20 – time-dependent perturbation frequencies

Description: the simulation includes perturbations, for instance due to supervolcanoes and impacts of extraterrestrial bodies such as asteroids and comets. These may have been much more frequent early in Earth’s history, even after the Late Heavy Bombardment. In general, it can be expected that volcanic and impactor events would have happened less often as the most likely impactors impacted, and as the Earth’s interior cooled down.

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

determine\_perturbations.m

set\_constants.m

There is also a new file tester.m which was used to test out the alternative scheme for generating perturbations (with a frequency that declines strongly over time).