

# Example parameter files

Here you can find example parameter files for running the numerical models and all of the analyses performed in the manuscript. The structure of the directory is as follows:

```
|--Analysis_files
  |--Model_landscapes
    |--movern_0p5
      |--n_is_one
      |--n_is_one_and_half
      |--n_is_two
      |--n_is_two_thirds
    |--movern_0p35
      |--n_is_one
      |--n_is_one_and_half
      |--n_is_two
      |--n_is_two_thirds
    |--movern_0p65
      |--n_is_one
      |--n_is_one_and_half
      |--n_is_two
      |--n_is_two_thirds
  |--Real_landscapes
    |--Loess_Plateau
    |--Waldport_Oregon
    |--Gulf_of_Evia
  |--MuddPILE_model
    |--movern_0p5
    |--movern_0p35
    |--movern_0p65
  |--Sensitivity_analyses
    |--La_Gomera_sigma
    |--Loess_channel_extraction
```

The directory **Model\_landscapes** contains the parameter files used to analyse the model runs. The files for each value of  $m/n$  are in a separate subdirectory, also containing subdirectories for each value of  $n$  analysed. The directory **Real\_landscapes** contains the parameter files used to run the analysis on the example real landscapes, where each landscape is contained its own subdirectory. Each file can be used to run the analysis to estimate the best fit  $m/n$  value from both the slope-area and  $\chi$  methods. Users can obtain the code along with detailed instructions for installing and running it at [https://lsdtopotools.github.io/LSDTopoTools\\_ChiMudd2014/](https://lsdtopotools.github.io/LSDTopoTools_ChiMudd2014/).

We also provide each of the driver files needed to produce the model runs using the MuddPILE software, which is available from <https://github.com/LSDtopotools/MuddPILE>. The driver files for running the models are contained in the directory **MuddPILE\_model**, where each of the sub-directories represents a run with a different  $m/n$  value. Each file within the sub-directory has the parameters for varying  $n$  for that value of  $m/n$ .

Finally we have also provided the parameter files that were used to run the sensitivity analyses on both the  $\sigma$  parameter used in the  $\chi$  methods and the threshold drainage area for channel extraction. These files can be found in the directory **Sensitivity\_analyses**: in order to reproduce the sensitivity analyses the user simply has to run the code using each of the parameter files provided in each sub-directory.