

This folder contains the following files:

1. "receivers.dat": location of receivers
2. "sources.dat": location of sources which is exactly the same as the receiver locations since the data is ambient noise.
3. "otimes.dat": frequency-dependent travel times which are structured as follows
  - The first line contains the number of frequencies used.
  - The second line contains the corresponding frequency components in Hz.
  - Then travel times follow for each source-receiver pair. The order is first source and first receiver, first source and second receiver, ..., and so on.
  - For each source-receiver pair, it begins with a number to show whether there is data (1) or not (0). If there are travel times, then travel times follow for each frequency. Each line contains two columns with the travel time and its noise. The presented value for noise is not realistic. In our inversion algorithm we didn't need a predefined noise. If a reliable travel time for a specific frequency or wave type is unavailable, it has the value of -1. See Figure 1 for the illustrative description of the structure of the file.
4. "MCTomo.inp": Input parameters for running the inversion package, which is MCTomo and accessible at "<https://blogs.ed.ac.uk/imaging/research/codes/>" entitled "[3D Monte Carlo tomography using both body and surface wave data](#)". It is worth mentioning that we have updated the original MCTomo software for a better performance (see Rahimi Dalkhani et al. 2021, 2023 for more details). The updated package is available upon request from "Amin Rahimi Dalkhani" by "a.rahimidalkhani@gmail.com" or "a.rahimidalkhani@tudelft.nl".

```
11 << No. of frquencies << Following line contains frequencies in Hz
2.000000 1.000000 0.500000 0.333333 0.250000 0.200000 0.166667 0.142857 0.125000 0.111111 0.100000
0 << There is no data for first source and first receiver
1 << There are data for first source and second receiver
0.992239 0.010000 << travel time and noise at the first frequency
-1.0 0.010000 << There is no data for the second frquency
0.675822 0.010000
0.620985 0.010000
0.557094 0.010000
0.520333 0.010000
0.507771 0.010000
0.496277 0.010000
0.473059 0.010000
0.478113 0.010000
0.491685 0.010000
1
1.816842 0.010000
1.496592 0.010000
1.221621 0.010000
1.109668 0.010000
1.017638 0.010000
```

Figure 1. Structure of the "otimes.dat".