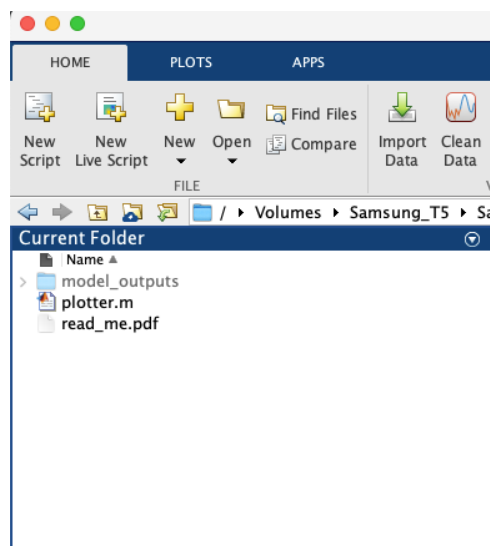


Read me – plotting thermal model outputs

The data you have downloaded allows you to plot the results of the thermal model published in “Scenario-based forecast of the evolution of 75 years of unrest at Campi Flegrei caldera (Italy)” by Caricchi et al. (2025). You will need a MATLAB license to be able to run this model.

Below are the steps to follow to run the routine successfully.

1. Unzip the folder “model_outputs.zip”
2. Open plotter.m
3. Make sure the working directory is set as the same of plotter.m (you can check in the MATLAB console, see below). There should be 2 files namely plotter.m and read_me, and one folder named “model_outputs”.

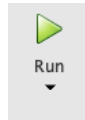


4. There are 4 models for which you can explore the outputs:
 - 25m_volmax: sill of 25 m thick with the maximum estimated volume
 - 25m_vol min: sill of 25 m thick with the minimum estimated volume
 - 15m_volmax: sill of 15 m thick with the maximum estimated volume
 - 15m_vol min: sill of 15 m thick with the minimum estimated volume

You can choose which model you want to see the results for. To do this, change the name of the last folder's name on line 13.

```
13 fileposition_model = 'model_outputs/15m_volmin/' %change the last
14 %folder's name to explore the other models (25m_volmin/, 25,_volmax/,
15 %15_volmax/ or 15m_volmin/). Do not delete "model_outputs/".
16
```

5. Now you can run the plotter.



6. Below are the plots for 25m_volmax.

Figure 1:

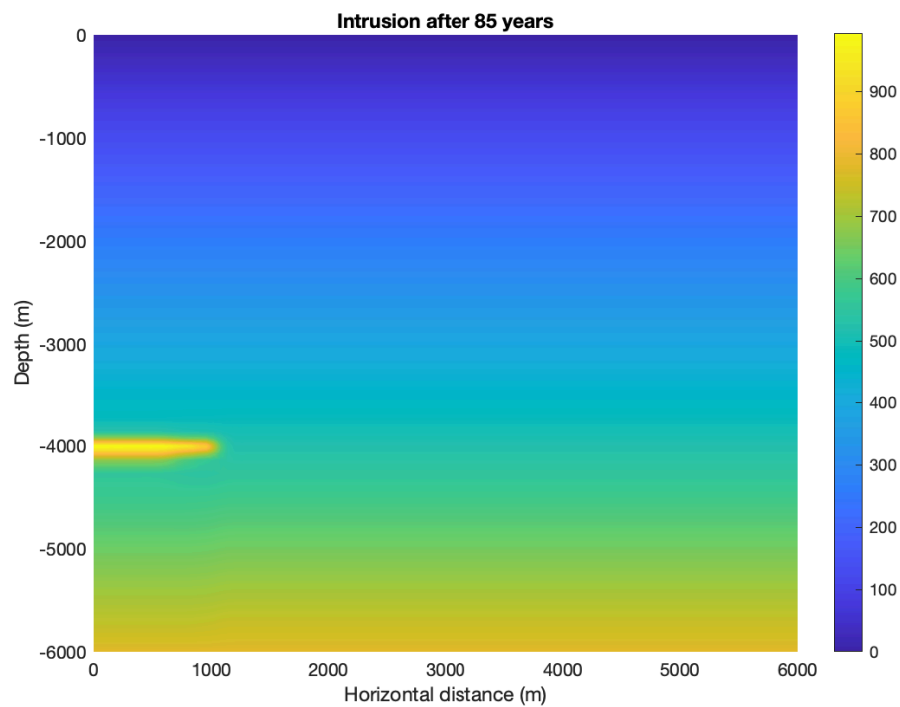


Figure 2:

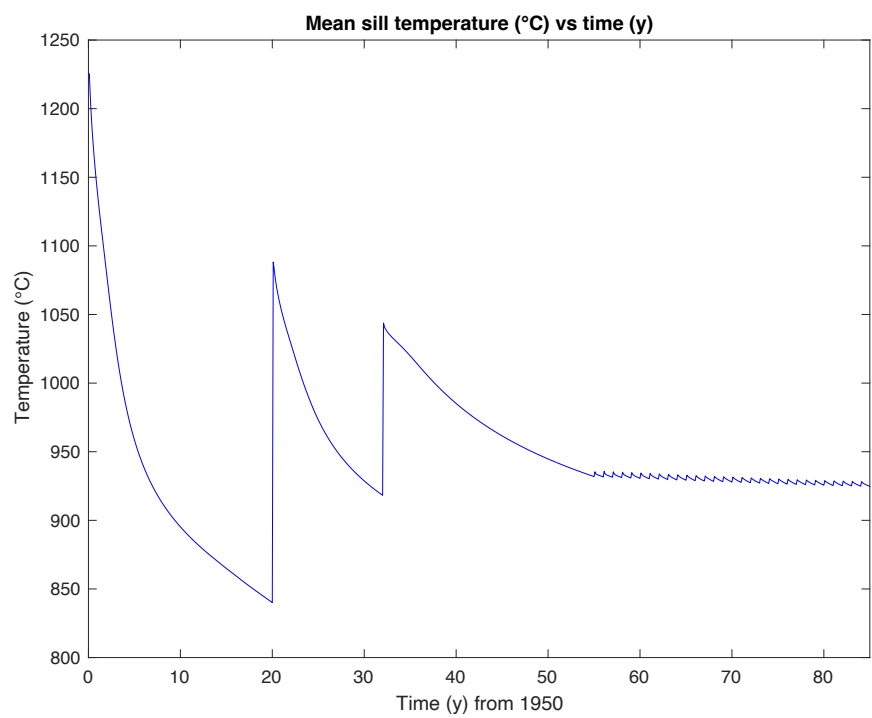


Figure 3:

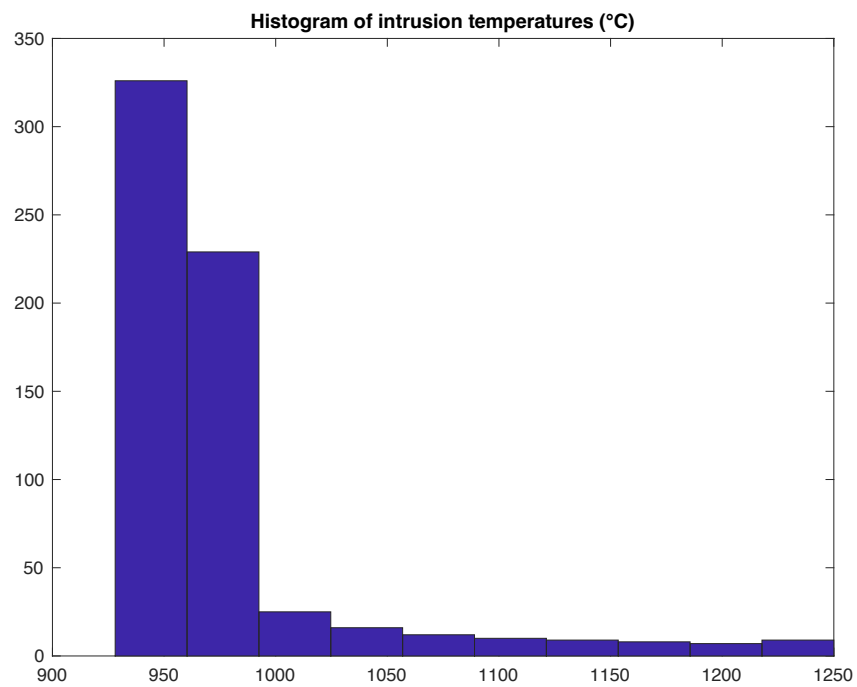


Figure 4:

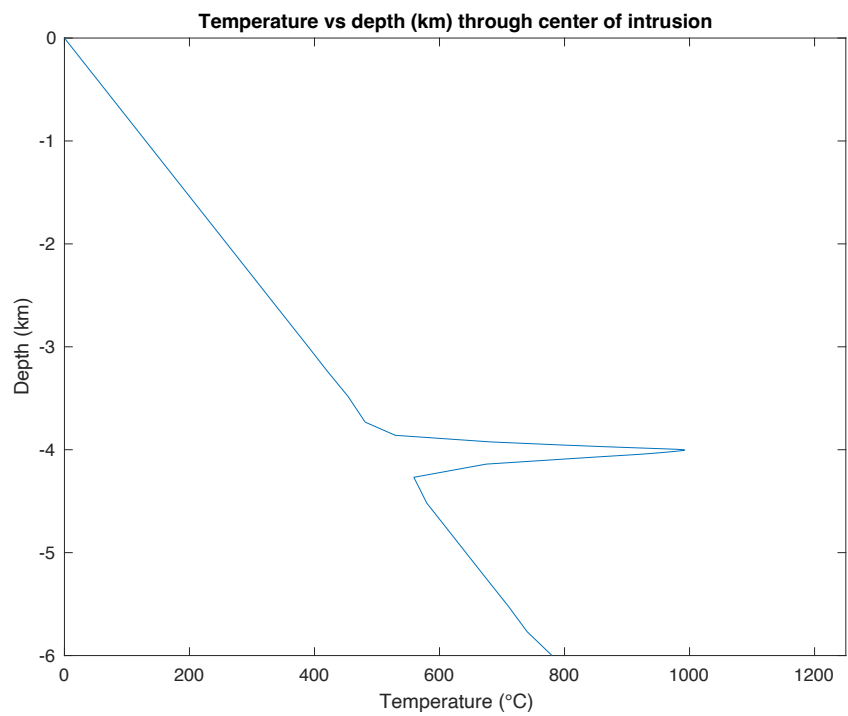


Figure 5:

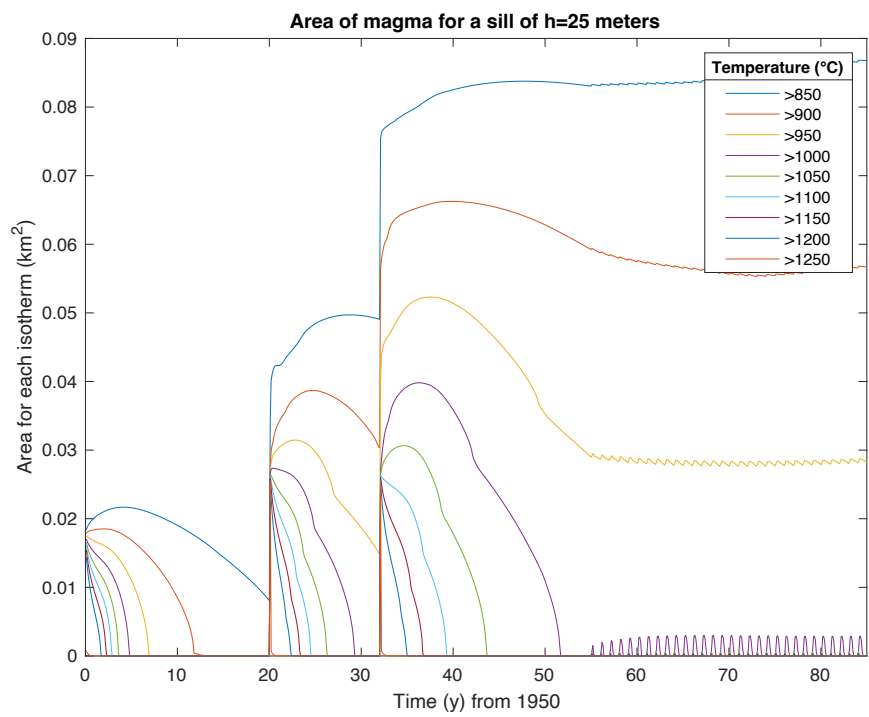


Figure 6:

