One-Page-Manual: *star*

    A. <u>Getting started</u>

1. unzip the zipped file folder named 'star20180827'

2. double klick on 'star.m'

3. in matlab: change directory to where the code is located

4. type 'star' in the matlab command window and confirm with <enter>

5. you will obtain output for the artificial dataset used in Lechleitner et al. (2016, QuatGeochron 35)

    B. <u>Getting familiar</u>

1. open 'parameters.txt'

2. change 'key' to 1, 2 or 3

3. close all open figures and execute 'star' again

4. you will obtain output of a randomly produced artificial dataset with 1, 2 or 3 changes in growth rate

    C. <u>Getting even more familiar</u>

1. in 'parameters.txt' change key to 5

2. close all open figures and execute 'star' again

3. you will obtain output to data of a stalagmite from Bir-uja cave (Fohlmeister et al., 2017, QSR 178)

    D. <u>Getting your results</u>

1. duplicate 'Bir-14C.txt', 'Bir-13C.txt' and 'Bir-MgCa.txt' (no Mg available, Sr is saved instead!) and rename them

2. copy your according data to the new files and rename the according files in 'parameters.txt'

3. add your anchor-point age and depth in 'parameters.txt'

4. close all open figures and execute 'star' again

5. you will obtain the output of your data set

<u>Tips:</u>

+ do not include radiocarbon values of the bomb peak period in the dataset

+ If the result of your dataset is not as expected, change 'output' to '2' and run the program again. This will provide the full (but likely confusing) amount of figures. This may help to understand the modelling results.

+ for saving 'Figure 100' as pdf use: figure(100), saveas(gcf,'my_stalagmite.pdf')

+ for questions contact jens.fohlmeister@uni-potsdam.de