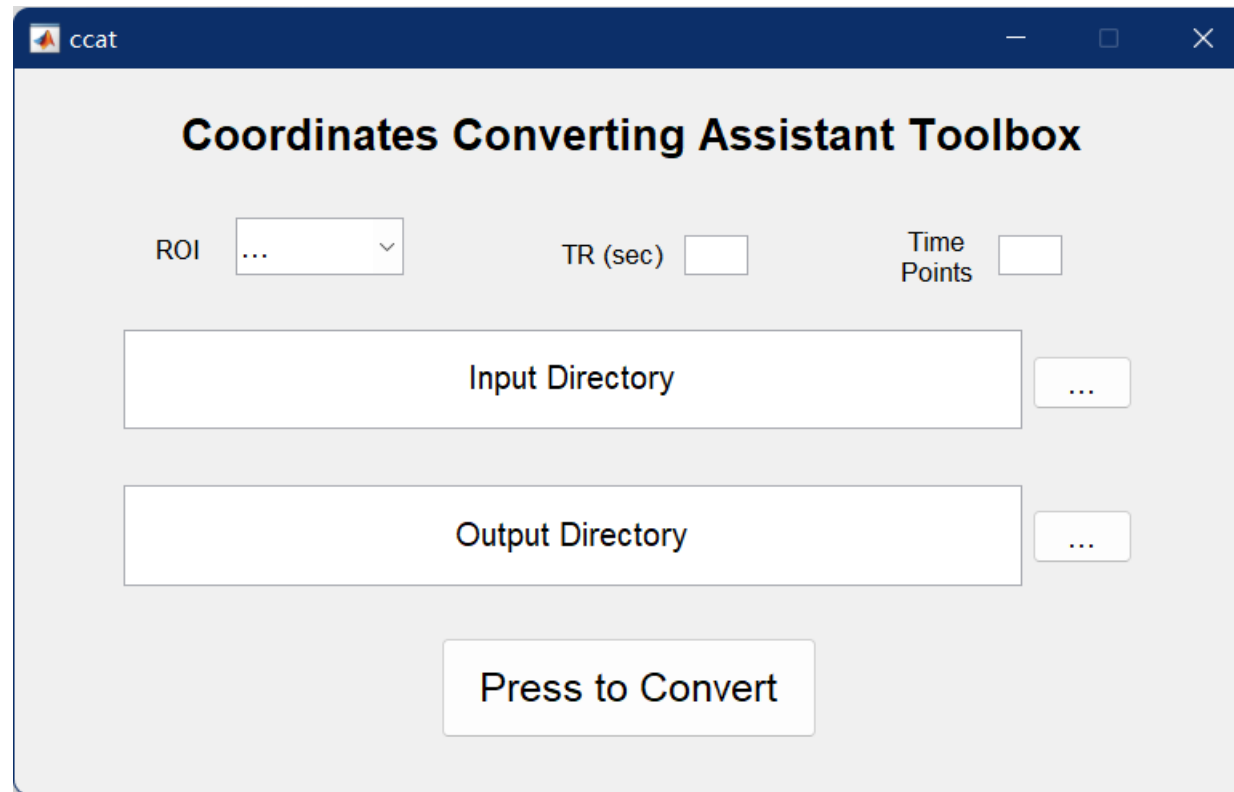


# CCAT user guide

If you think CCAT is useful for your work, citing it in your paper would be greatly appreciated!  
Reference: Zhao, N., Qiao, Y., ... Zang, Y.F., 2024. Automatically targeting the dorsolateral subthalamic nucleus for functional connectivity-guided rTMS therapy. Ageing Neur, doi: 10.20517/and.2023.31

2024-05-10

# Main interface



The screenshot shows a software window titled "ccat" with standard window controls (minimize, maximize, close). The main content area is titled "Coordinates Converting Assistant Toolbox". It contains several input fields: "ROI" with a dropdown menu showing "...", "TR (sec)" with a text box, and "Time Points" with a text box. Below these are two large text boxes for "Input Directory" and "Output Directory", each followed by a button with "...". At the bottom center is a large button labeled "Press to Convert".

**Coordinates Converting Assistant Toolbox**

ROI

TR (sec)

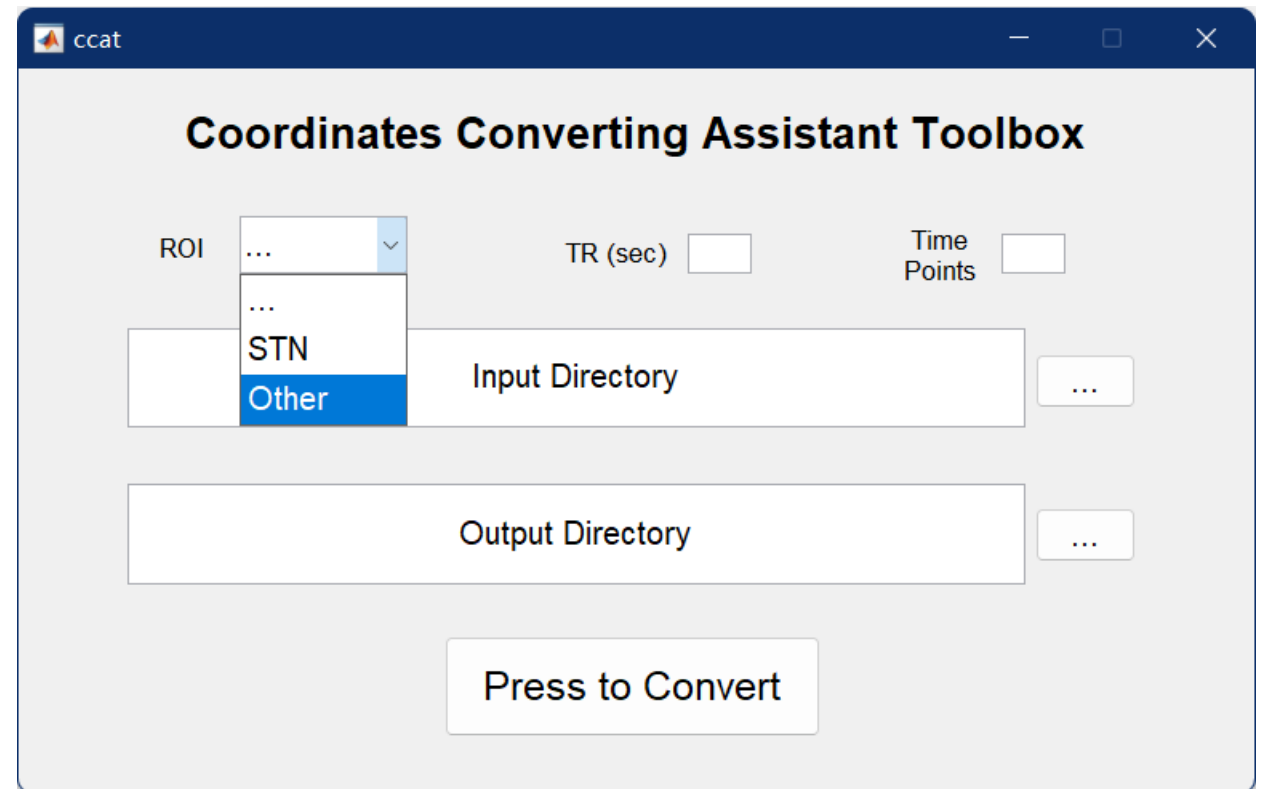
Time Points

Input Directory

Output Directory

# ROI selection

- ROI can be defined as any brain masks by choosing ‘Other’. Default is STN.
- You need to select a folder that contain mask files **ONLY**. Multiple mask files in one folder is accepted.

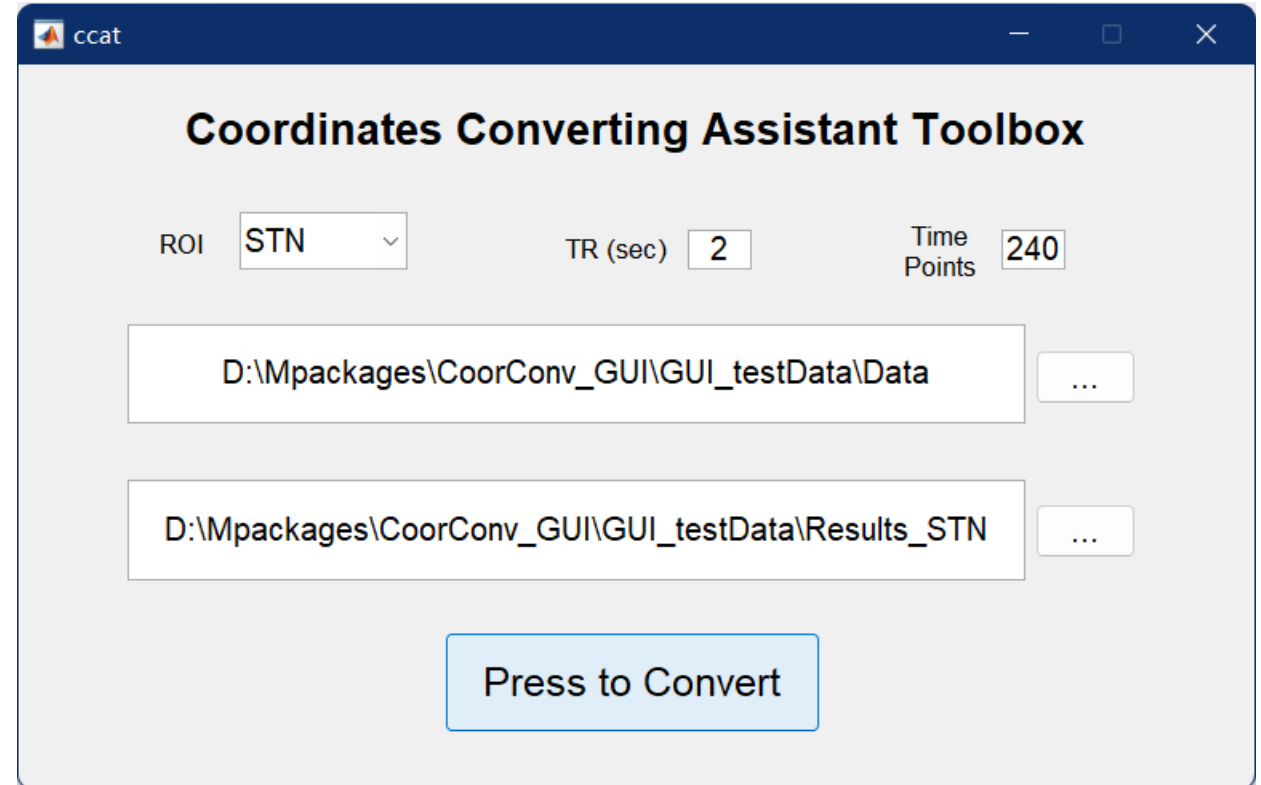


# Other input parameters

- The TR and time points are based on your functional data.
- Input directory is a path of a folder which have two subdirectories named 'FunImg' and 'T1Img', and **ONLY ONE** subject data in each subdirectory.
- Output directory is a path that will save all result files.

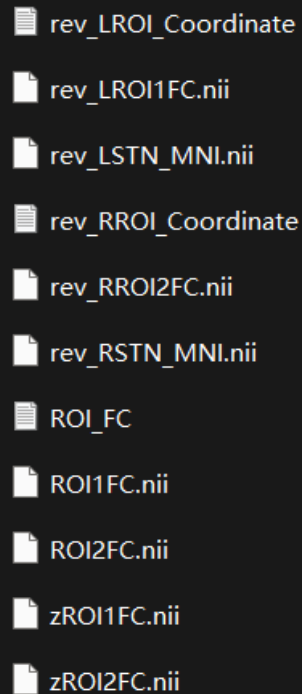
# Run

- After set all parameters, press the bottom button 'Press to Convert'. This toolkit will automatically calculate and save all results.



The screenshot shows a software window titled "ccat" with a dark blue header. The main area is titled "Coordinates Converting Assistant Toolbox". It contains several input fields: "ROI" is a dropdown menu set to "STN"; "TR (sec)" is a text box with the value "2"; "Time Points" is a text box with the value "240". Below these are two file path input fields. The first field contains "D:\Mpackages\CoorConv\_GUI\GUI\_testData\Data" and has a browse button "...". The second field contains "D:\Mpackages\CoorConv\_GUI\GUI\_testData\Results\_STN" and also has a browse button "...". At the bottom center is a large blue button labeled "Press to Convert".

# Output results



rev\_LROI\_Coordinate  
rev\_LROI1FC.nii  
rev\_LSTN\_MNI.nii  
rev\_RROI\_Coordinate  
rev\_RROI2FC.nii  
rev\_RSTN\_MNI.nii  
ROI\_FC  
ROI1FC.nii  
ROI2FC.nii  
zROI1FC.nii  
zROI2FC.nii

- Default STN ROI will generate following results:
- 1. Original space results with the prefix of ‘rev\_’ which contains converted ROI with coordinate, and FC map.
- 2. ROI time series.
- 3. Standard space FC map (with Z score FC map).