Tutorial for using code and data for ‘Tomatsu_NC2023’

System requirements:
The authors made the code at Matlab (ver. R2020b) and RStudio (R ver. 4.2.3) on Windows 10 Pro (ver. 21H2).

Installation:
Installation of Matlab: https://www.mathworks.com/help/install/
1.Obtain a software license or trial from the MathWorks Store or your administrator.
2.Download the installer from MathWorks Downloads.
3.Run the installer. For standard installation, see Install Products Using Internet Connection. For other options, see Install Products.

Installation of R and RStudio:
1. Download and install R; Download the installer for your OS from https://cran.r-project.org/ , and install it.
2. Download and install RStudio; Download the installer from https://posit.co/products/open-source/rstudio/ , and install it.

Usually, the installation was done within 10 min each.

Contents list:

Data:

1. Datafile.xlsx
2. OT04906DR_data
3. Y0425132162_data

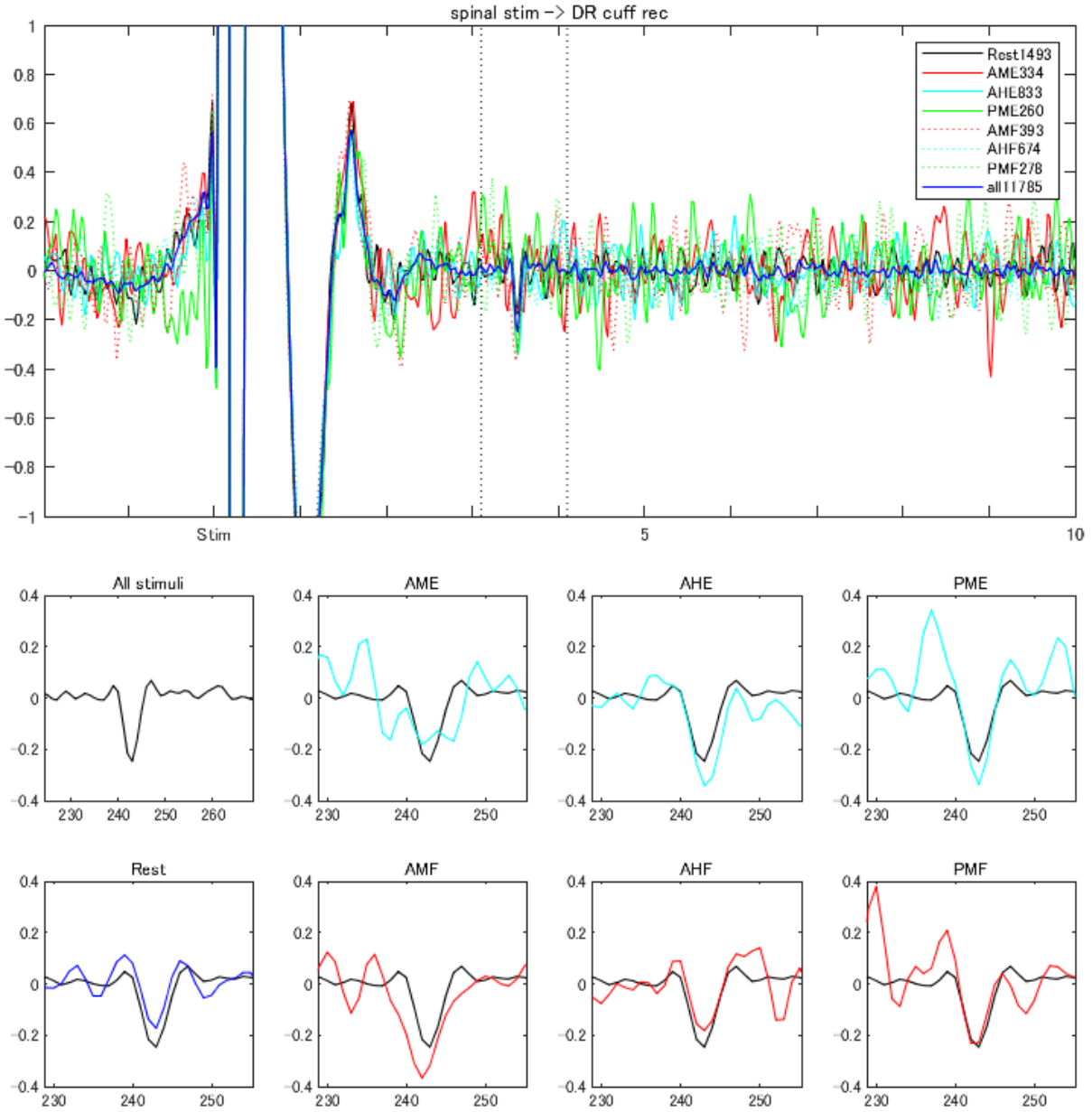
Codes:

1. Fig2b_graphic.m
2. Fig4ef.m
3. Fig2cdFig3_graphic.R
4. Fig4_Supp1cdef_graphic.R
5. Fig5_Supp3_graphic.R
6. SuppFig2.R

The run time is within 1 min each on the normal PC.

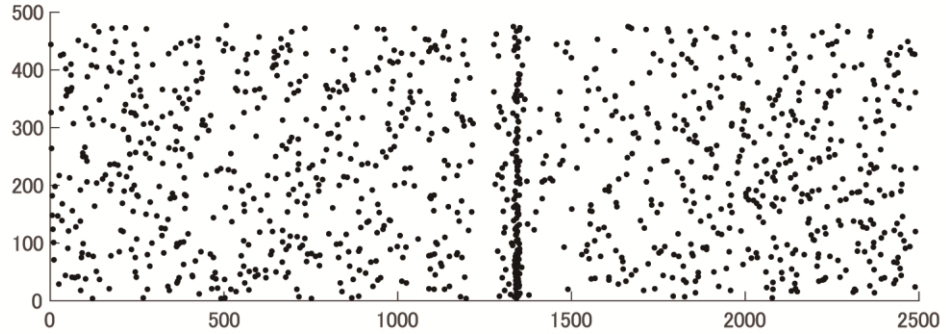
How to use codes:

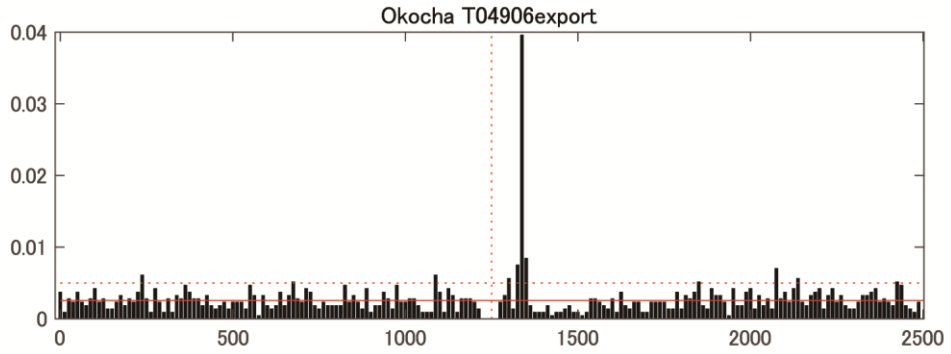
1. Start Matlab.
2. Open ‘Fig2b_graphic.m’.
3. Change the current directory to ‘Y0425132162_data’.
4. Run the code.
5. You can get the result figure.

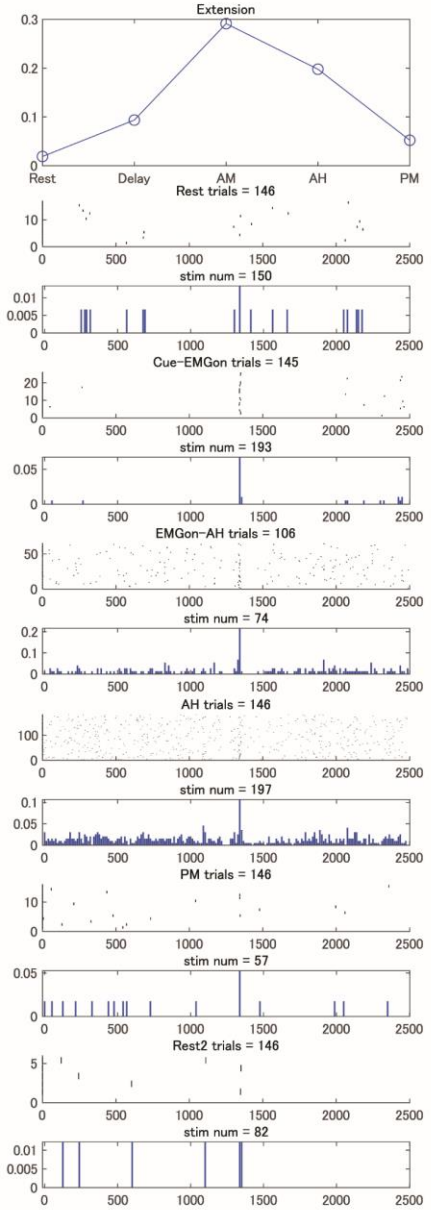


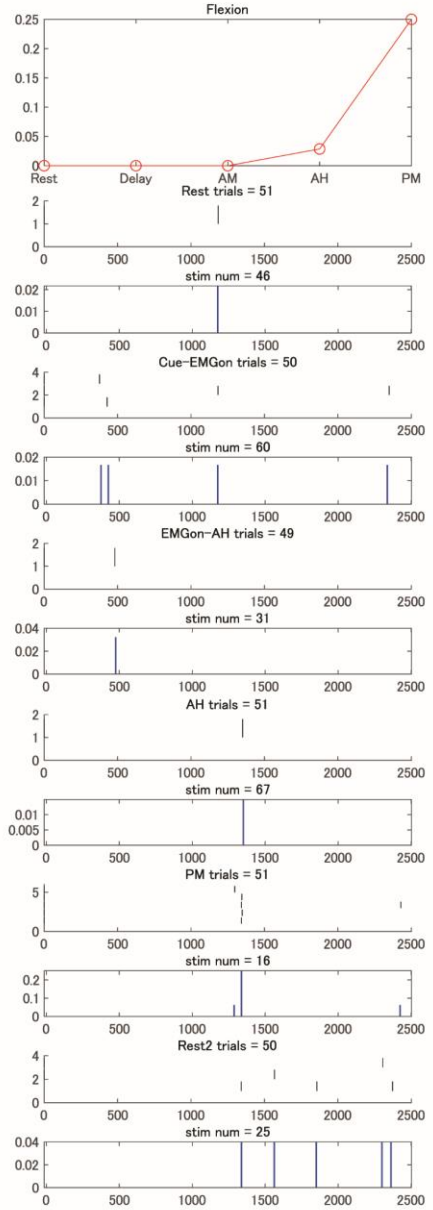
How to use codes:

1. Start Matlab.
2. Open ‘Fig4ef.m’.
3. Change the current directory to ‘OT04906DR_data’.
4. Run the code.
5. You can get the result figures.





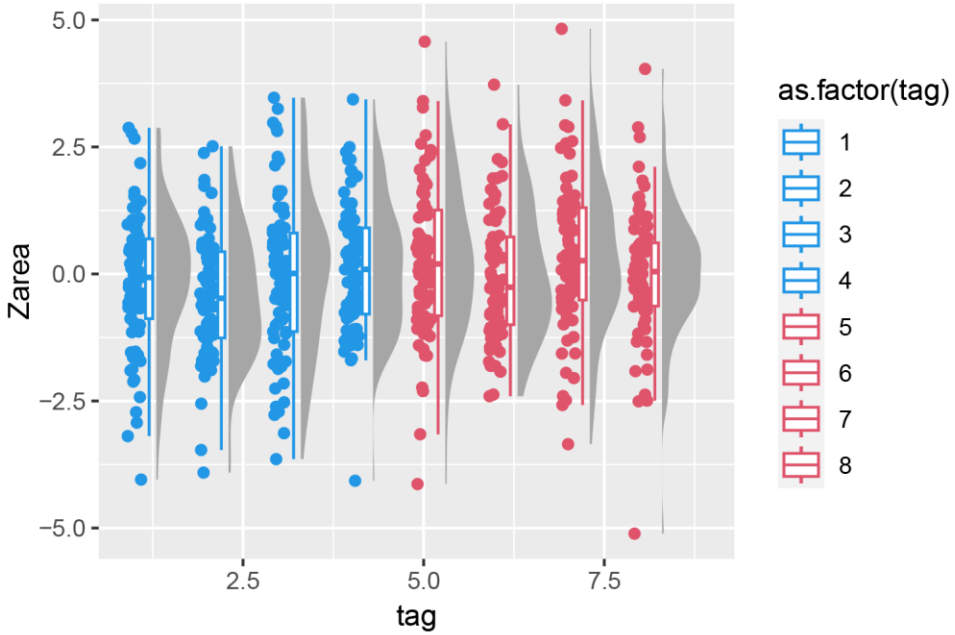


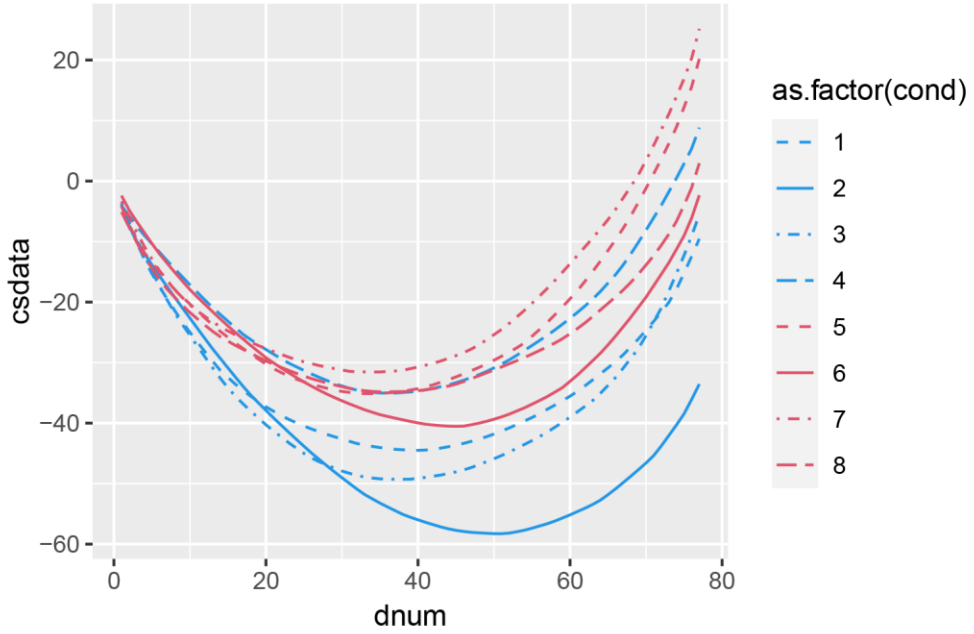


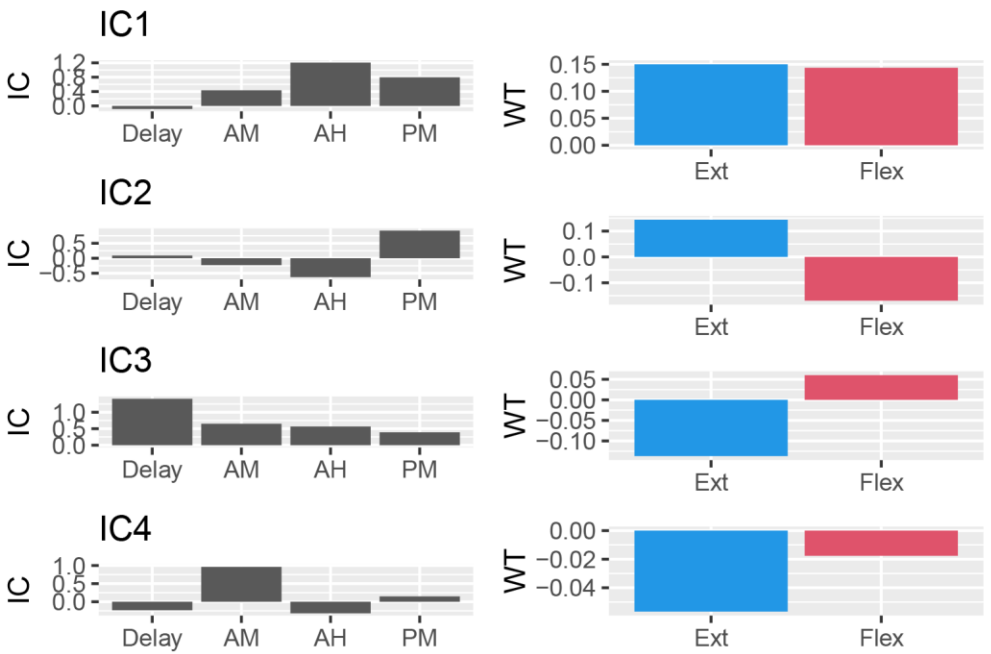
How to use codes:

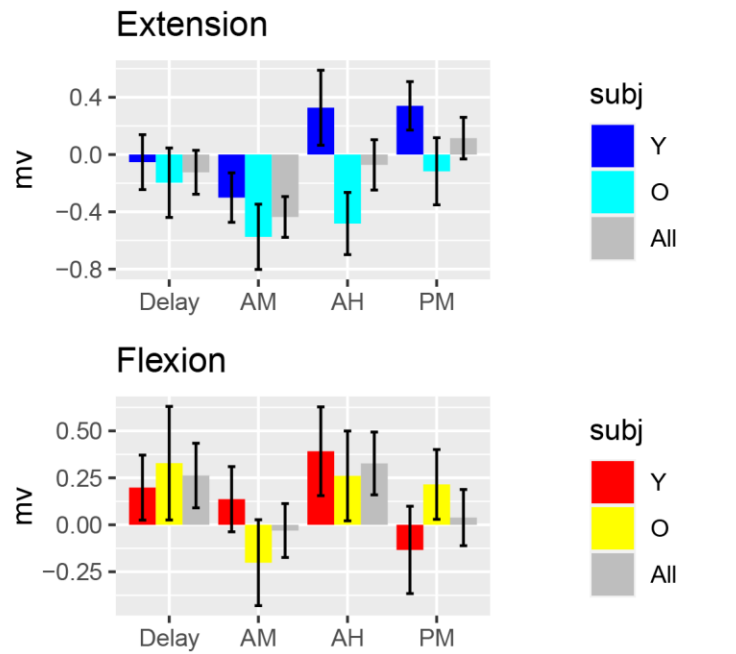
1. Start RStudio.
2. Open ‘Fig2cdFig3_graphic.R’.
3. Run the code.
4. You can get the result figure.

Note: the results of ICA were slightly changed each time.



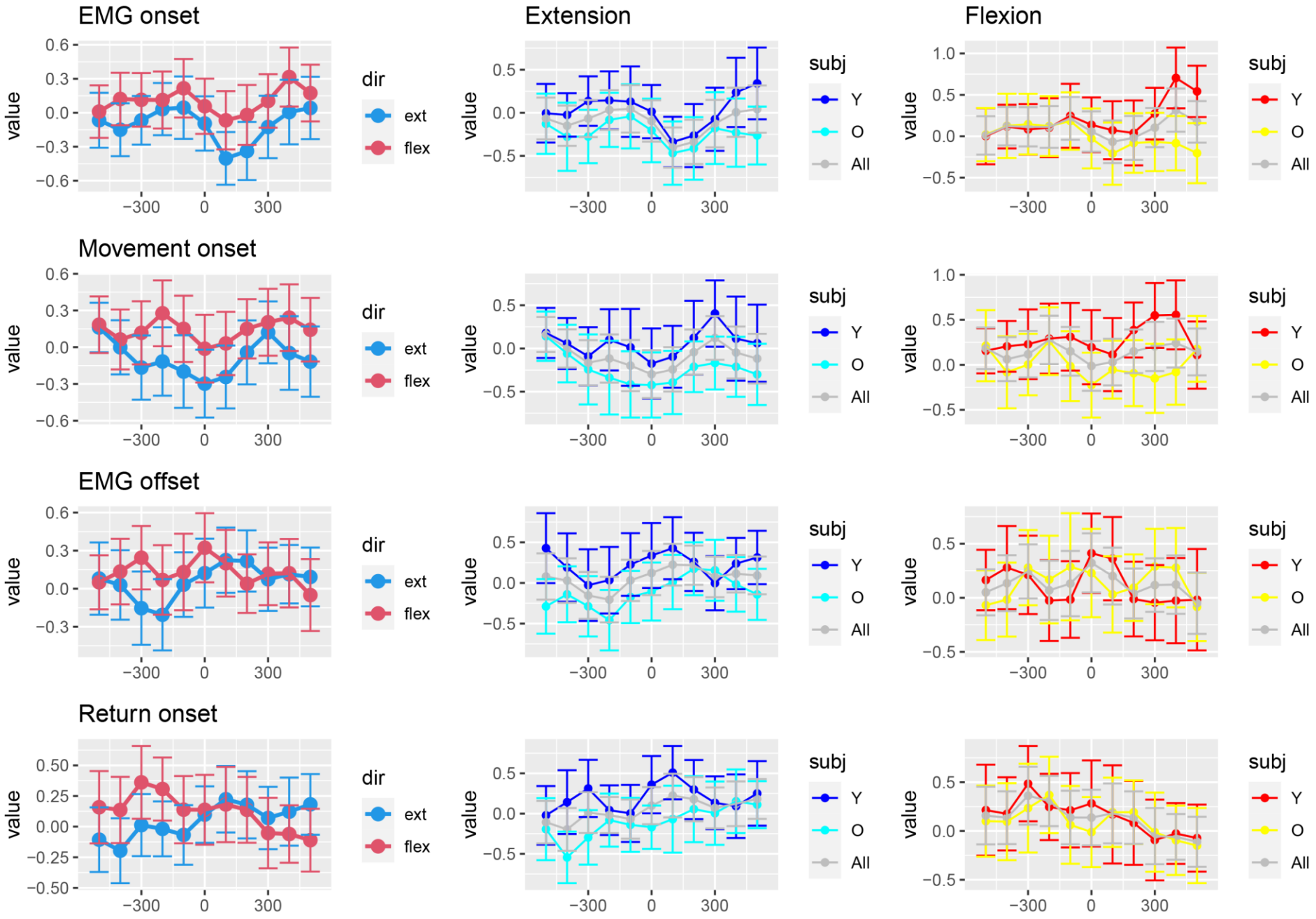






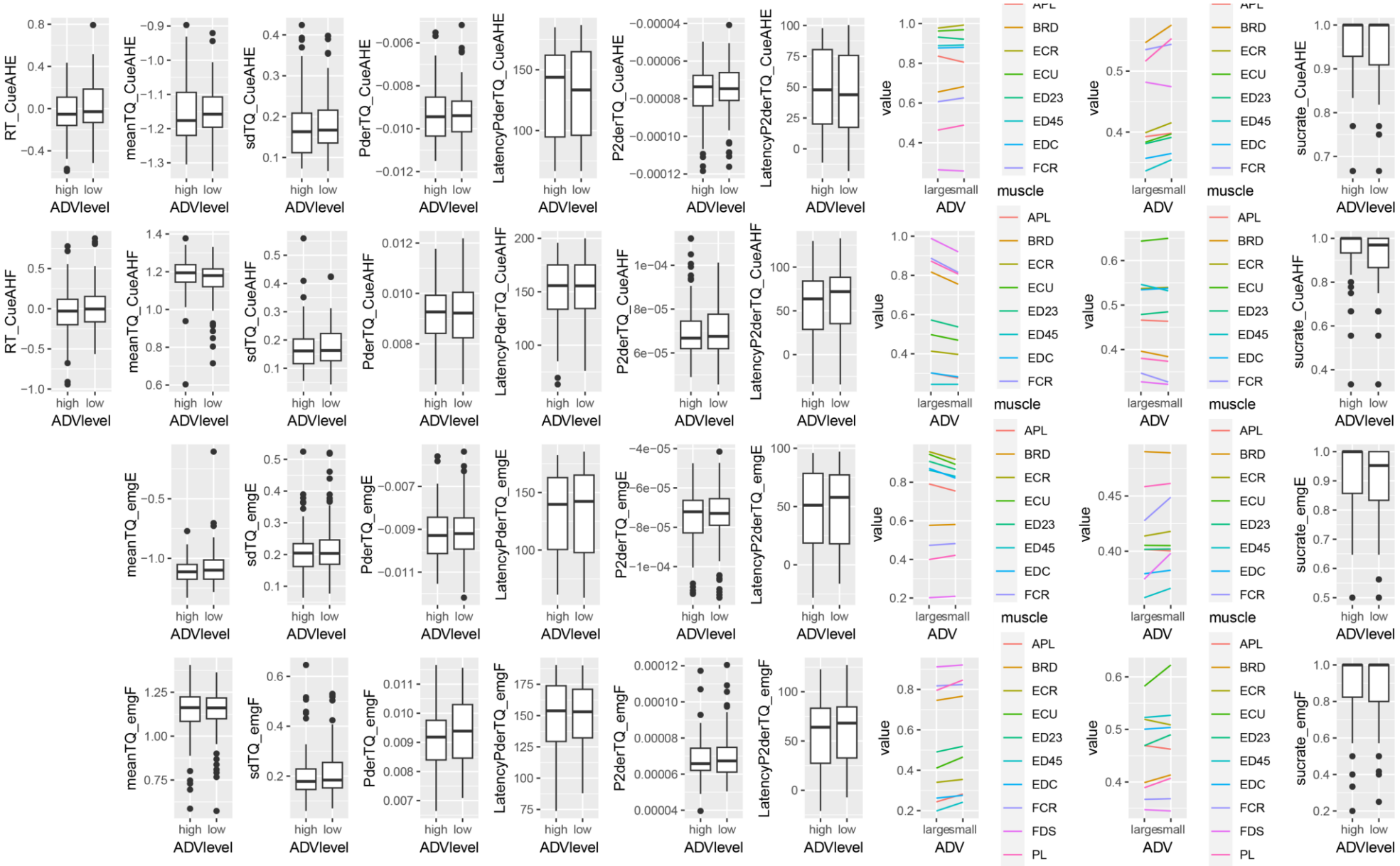
How to use codes:

1. Start RStudio.
2. Open ‘Fig4_Supp1cdef_graphic.R’.
3. Run the code.
4. You can get the result figure.



How to use codes:

1. Start RStudio.
2. Open ‘Fig5_Supp3_graphic.R’.
3. Run the code.
4. You can get the result figure.



How to use codes:

1. Start RStudio.
2. Open ‘SuppFig2.R’.
3. Run the code.
4. You can get the result figure.