This repository contains all of the code used for analysis in the cited manuscript. Note that only code written by GWDiehl is included in this repo. Those by others has been removed but can be found at https://osf.io/s5xqm/.

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Differential processing of decision information in subregions of rodent medial prefrontal cortex
bioRxiv August 5, 2022
https://www.biorxiv.org/content/10.1101/2022.08.04.502840v1

Accompanying data (and duplicate code) can be found here:
https://osf.io/s5xqm/

ID_GWD_Dirs:

- Directories listing pointing to where everything is. The RootDir MUST be changed according to the rootdir of the user. **Additionally, the top of the "*mPFC_eLife_MakeAllFigs"* function directs where figures will be saved to and should also be changed according to user preference.**

Initial Analysis:

- Code to convert the raw data (single unit spikes and behavior) into analyzed data (PETHs, correlations, TE, etc.)
- The function "*mPFC_eLife_RunAllAnalyses"* acts as a condensed shell function that will run through each of the various analysis functions contained within this folder.

Final Processing:

- Code to take analyzed data and produce figures, stats, etc.
- The function "*mPFC_eLife_MakeAllFigs"* acts as a condensed shell function that will run through and make all of the figure outputs. The top of this function contains the root output directory where figure files will be saved. This MUST be changed to according to the user's needs.

ADRLAB-codeset: *(NOT INCLUDED)*

- Redish Lab codeset (also available at https://github.umn.edu/RedishLab/ADRLAB-codeset). Contains all methods associated with the ts/tsd object classes that are employed throughout the included code.

GWD_RRow General:

- Internal processing code for analyzing RRow/mPFC specifically. None of these functions need be called specifically, but are required for proper functioning of all other analysis pieces. Many/most of these functions are valuable for analysis of the RRow/mPFC data set but will have limited (if any) utility more broadly.

Misc Utilities:

- General utility code non-specific to this project, but used in the code set. None of these functions need be called specifically, but are required for proper functioning of all other analysis pieces. Many of these functions are general tools/utilities and are in no way specific to this project.

Other Code: *(NOT INCLUDED)*

- Code acquired from elsewhere (file-exchange, Timme et al). All attempts are made to retain original authorship credits in the code provided here. Failures to provide credit are the result of oversight and not deliberate.