**Using Celine’s multi-day 2p scripts (designed for DART experiments)**

|  |  |
| --- | --- |
| **File name** | **Use** |
| DART\_V1\_contrast\_ori\_Celine | All subsequent scripts are based on the organization within this file; it is a catalog of experiments, each with a unique identifying number.  Considerations:   * Some of the fields in this structure are not used any more and can be removed. * If multiple people are collecting data for different DART projects, we probably want to have separate catalog files (but make sure all subsequent files are set correctly to pull the catalog file you want). |
| multiDay\_cellSelect\_Celine | Run this on *each* day individually to register and segments that day. |
| multiDay\_reverseMatch\_newMask\_Celine | Run this to match one day to the reference day.  Considerations:   * Which day to use as the reference |
| multiDay\_reverseMatched\_extraction\_Celine | Run this on the matched data to prepare it for analysis, including:   * Find cells that are responsive on at least one day (“keep cells”) * Identify preferred direction for each cell * Extract time courses at the preferred direction for each cell (these tcs are now averaged over trials at that direction) * Identifies trials on each day when the mouse was running   Considerations:   * What criteria to use for inclusion – responsive on either day, responsive on both days, responsive on a particular day…? |
| multiDay\_reverseMatched\_sharedConConcat\_Celine | Run this on the matched data *after the extraction script* to visualize and analyze matched data, including:   * Concatenate multiple experiments – or you can use this for a single experiment * Dictate what contrasts to look for in each * Finds cells that had running trials at preferred direction on both days * Plot TCs pre- and post-DART for stationary and running conditions * Get response means for each day/stimulus condition * Plot contrast-response curves and normalized tuning curve for each day   Considerations   * When to use cells that were simply responsive, vs. when to use cells that additionally had running trials, and whether they need to have running trails at *all* contrasts or only some |