READ ME

Outlined workflow of reprocessed ACROBAT data 🡪 patchID 🡪 null model 🡪 compare observed to null 🡪 quantify differences (stats)

Defining patches with ACROBAT data script order:

Reprocessed data from Isaac’s script:

‘ACROBAT\_create\_struct.m’

* ACRO\_reprocessed.mat

Choose which variable to use to define patches and implement Thomalla et al 2015 methods:

‘defining\_bloom\_final\_reprocessed\_adelie\_transect.m’

‘defining\_bloom\_final\_reprocessed\_adelie\_transect5m.m’

* patchID\_Adelie.mat
* patchID\_Adelie5m.mat

Calculating length and assigning patchID number:

‘ACROBAT\_match\_patches\_to\_LCS.m’

‘ACROBAT\_match\_patches\_to\_LCS5m.m’

* patchID\_Adelie\_matched.m
* patchID\_Adelie5m\_matched.m

Creating null model:

‘acrobat\_background.m’ (on T7\_shield)

‘acrobat\_background5m.m’ (on T7\_shield)

* random\_resample.mat
* random\_resample5m.mat

Assign LCS values to randomly generated patches

‘resample\_rpd\_ftle\_background\_acro.m’

‘resample\_rpd\_ftle\_background\_acro5m.m’

* random\_resample\_all.mat
* random\_resample\_all5m.mat

Calculate length of patch, percent of patch that matches LCS

‘ACROBAT\_match\_patches\_to\_LCS\_random\_resampled\_data.m’

‘ACROBAT\_match\_patches\_to\_LCS\_random\_resampled\_data5m.m’

* random\_resample\_all\_percentage.m
* random\_resample\_all\_percentage5m.m

Note: not sure where patchID\_Adelie.mat had len\_patch variable calculated… but I calculated patchID\_Adelie5m.mat len\_patch variable here as well as average patch LCS values. Its pretty simple.

Jackie start here 20June2023

Comparing null to observed, plotting: \*\* this script also contains the best definition of edge

‘compare\_real\_to\_random.m’

‘compare\_real\_to\_random5m.m’

Calculating Statistics:

‘compare\_real\_to\_random\_stat\_test.m’