

NOMADS



Neurodata's **O**pensource **M**ethod for
Autonomous **D**etection of **S**ynapses

LAST WEEK

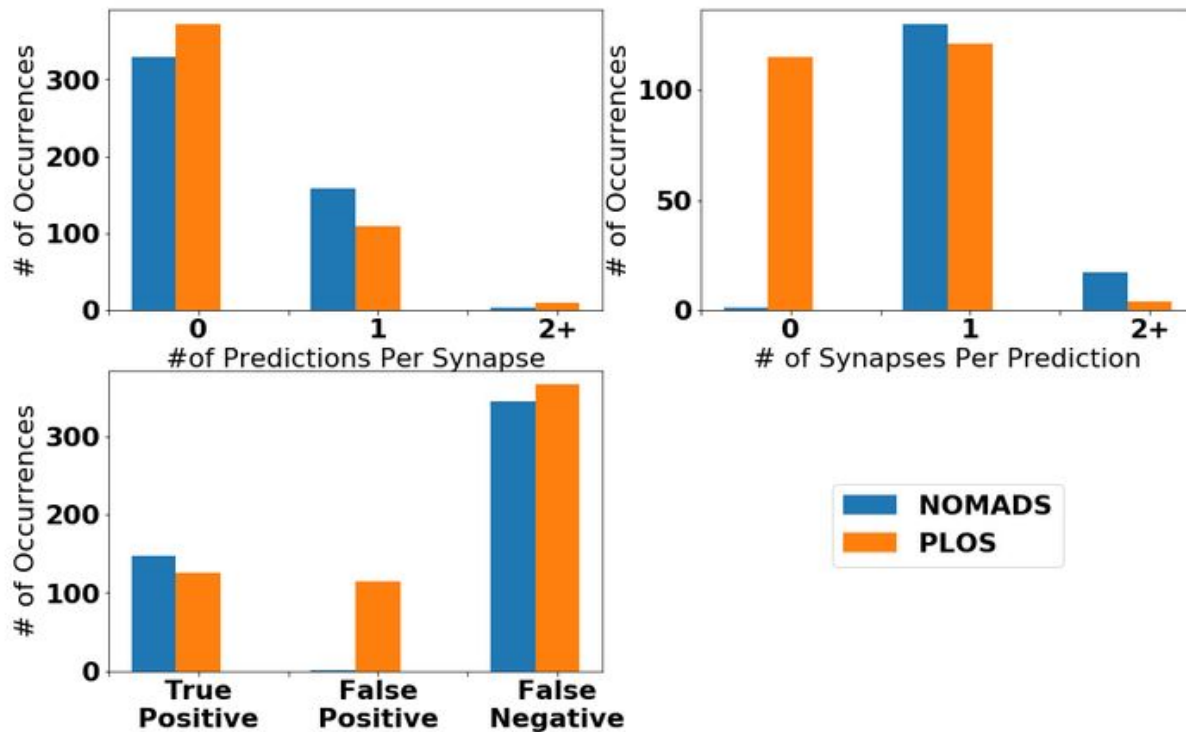
- PLoS vs NOMADS on Collman14
 - DoD: Collman Plot w/ Comparison
- NOMADS on *super new* Collman Data
 - DoD: Collman Plot w/ Comparison
- *Just look at it*”TM of False Negatives
 - DoD: Notebook with the analysis
- Synaptome Code - for calculating features
 - DoD: Notebook demonstrating usage

LAST WEEK

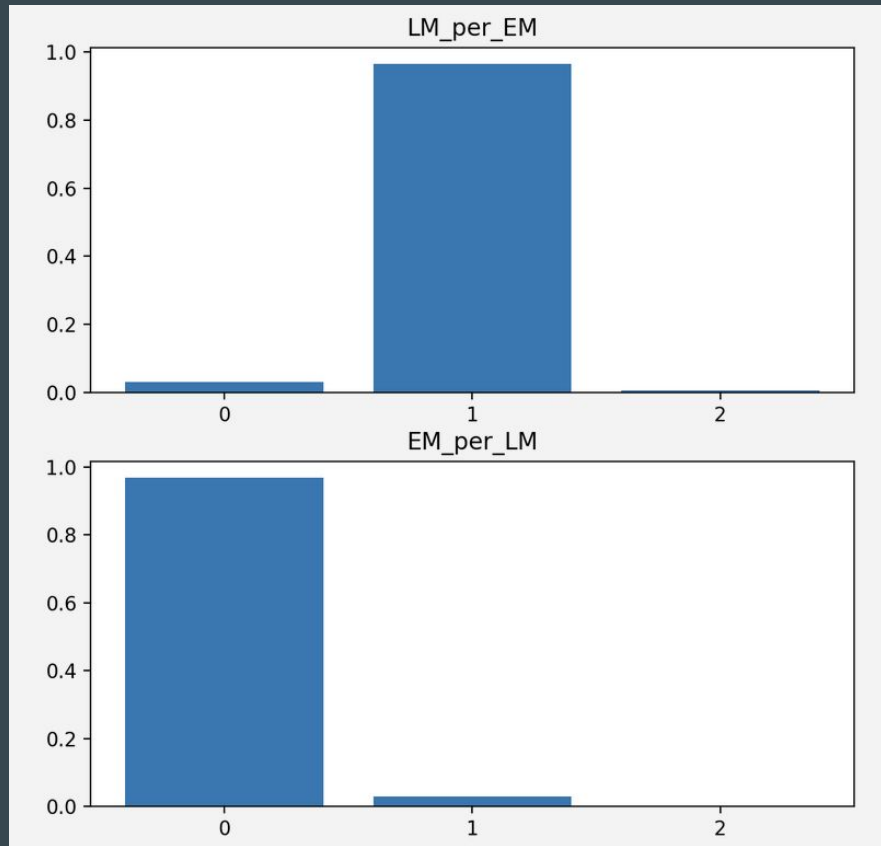
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 - DoD: Collman Plot w/ Comparison
- *Just look at it*™ of False Negatives ☒
 - DoD: Notebook with the analysis
- *Synaptome Code - for calculating features* ☒
 - DoD: Notebook demonstrating usage

NOMADS Bests PLoS on Collman 14

Algorithm Performance on Collman 2014

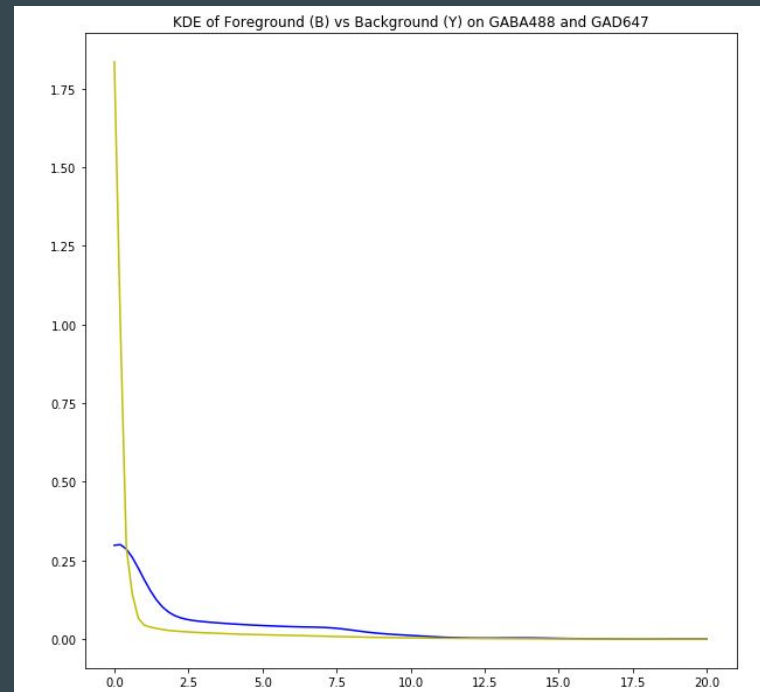
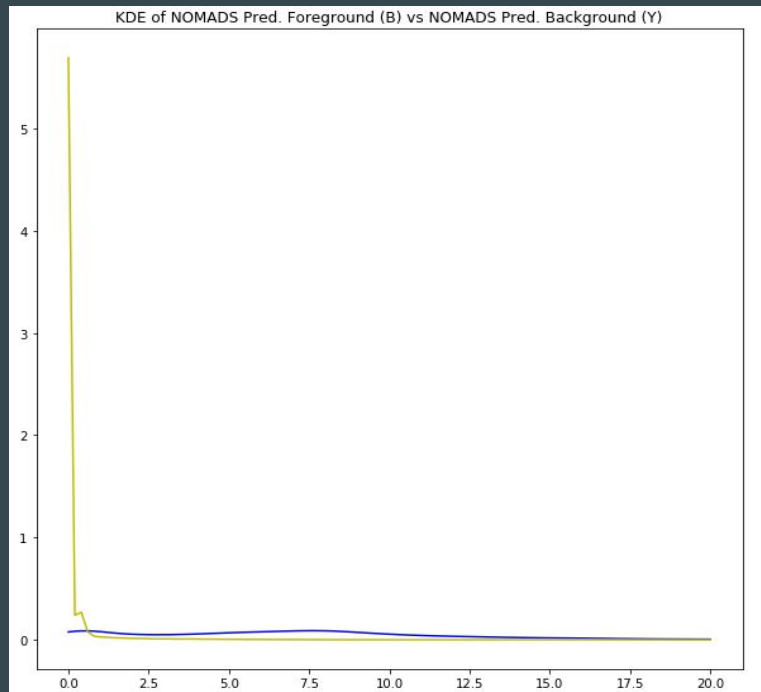


NOMADS Merges Everything on *Super New Collman*



- This plot is confusing!
- LM per EM = prediction per synapse
- EM per LM = synapse per prediction
- There is ONE merged synapse in the 2 column of the EM per LM chart
- This merge accounts for ALL of the 1 LM per EM

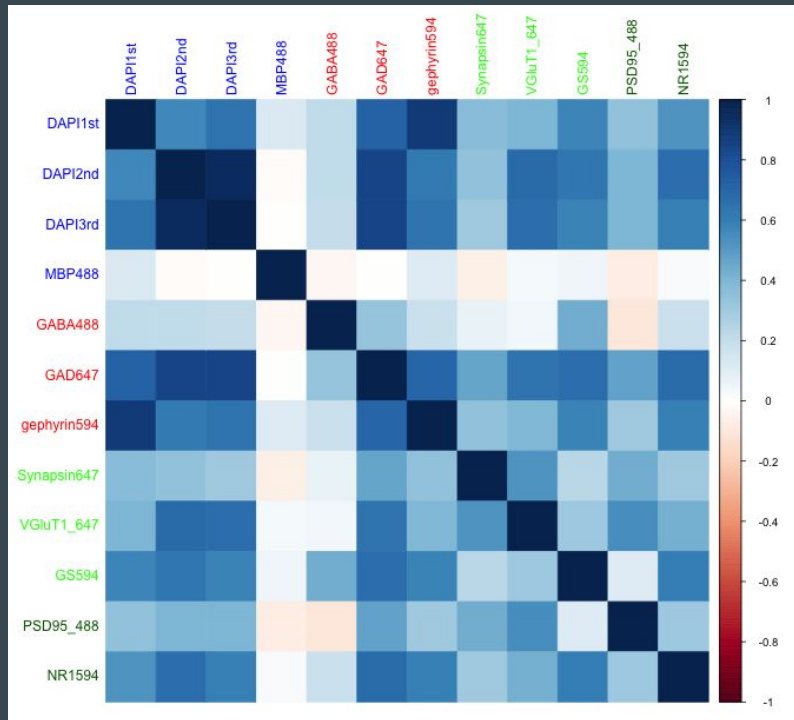
GABAergic Synapses are Hard



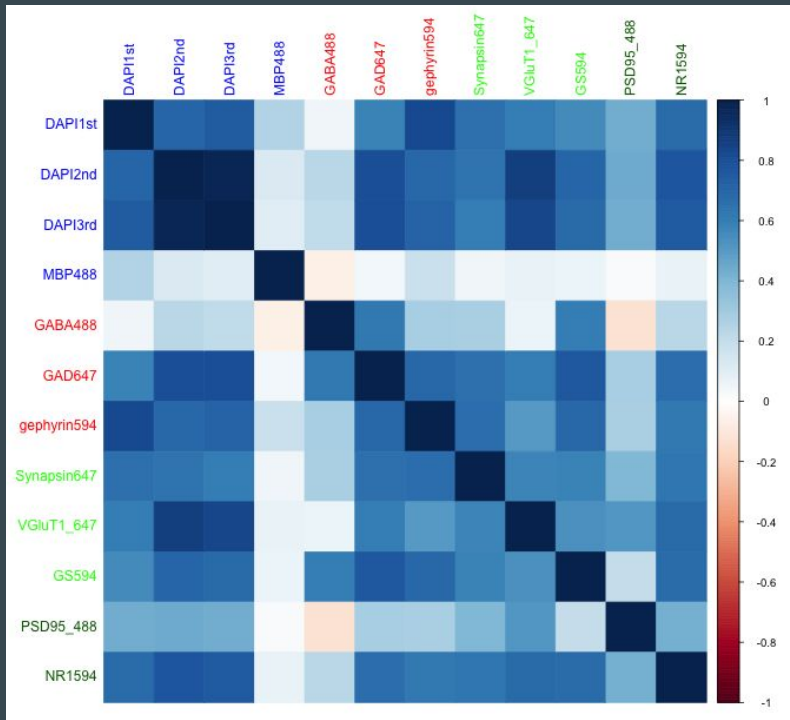
Unsupervised Algo-Stuff around TP and FN look similar for Collman15

[LINK](#)

True Positives



False Negatives



Synaptome - Calculating Features

- Collman15v2
 - 236 synapses + 12 channels
 - ~5 minutes to finish
- Collman14v2
 - 1451 synapses + 11 channels
 - ~20 minutes to finish
- Only integrated sum for now.
- [Link](#)

NEXT WEEK

- Refactor Sprint Goals
- Talk With Jovo
- Implement MEDA and synaptograms
 - Port XYZ Spacial Cluster Plot to Python