Interbrain data analysis

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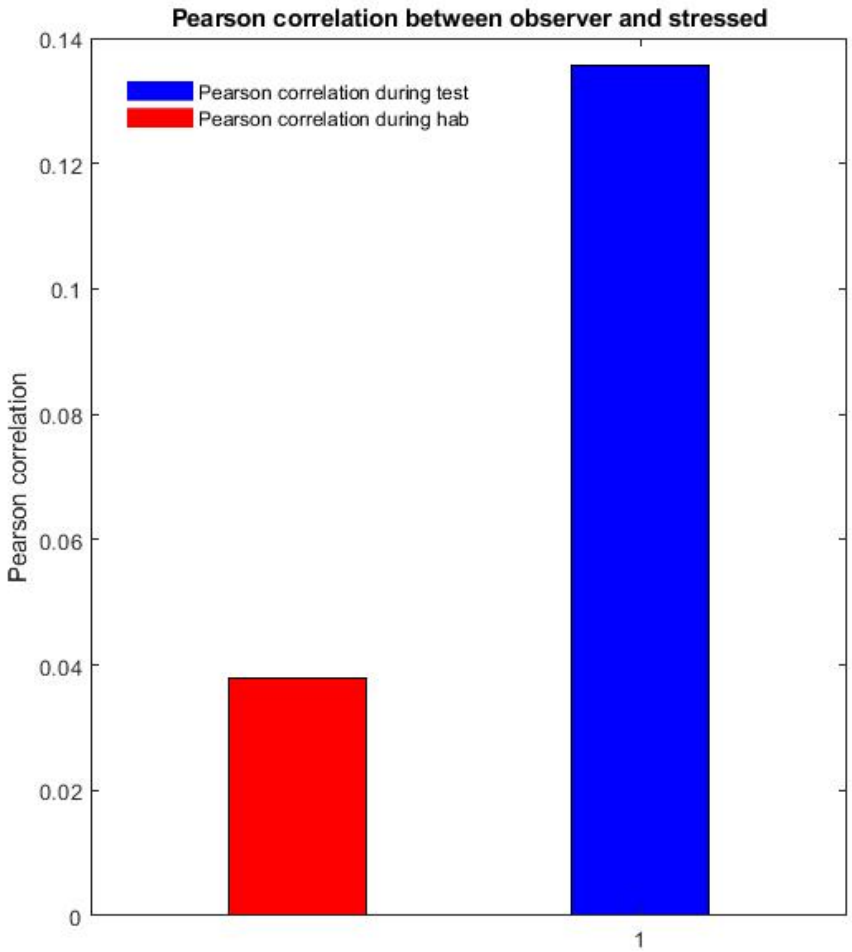
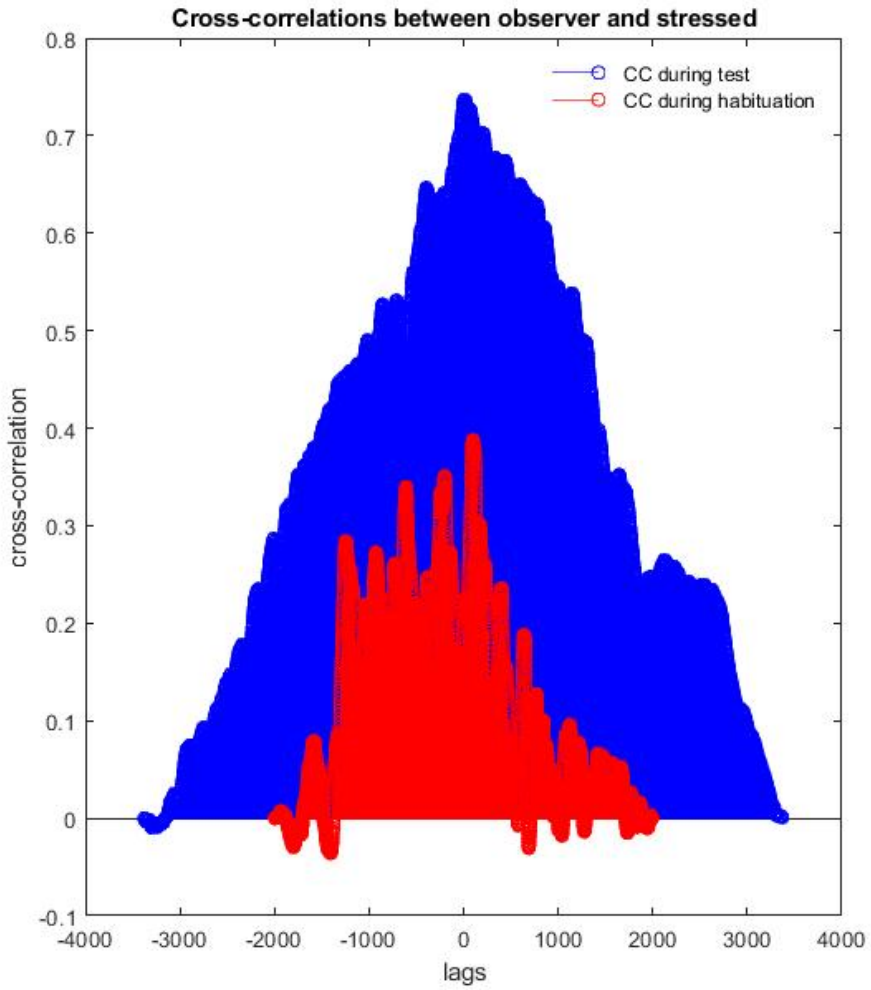
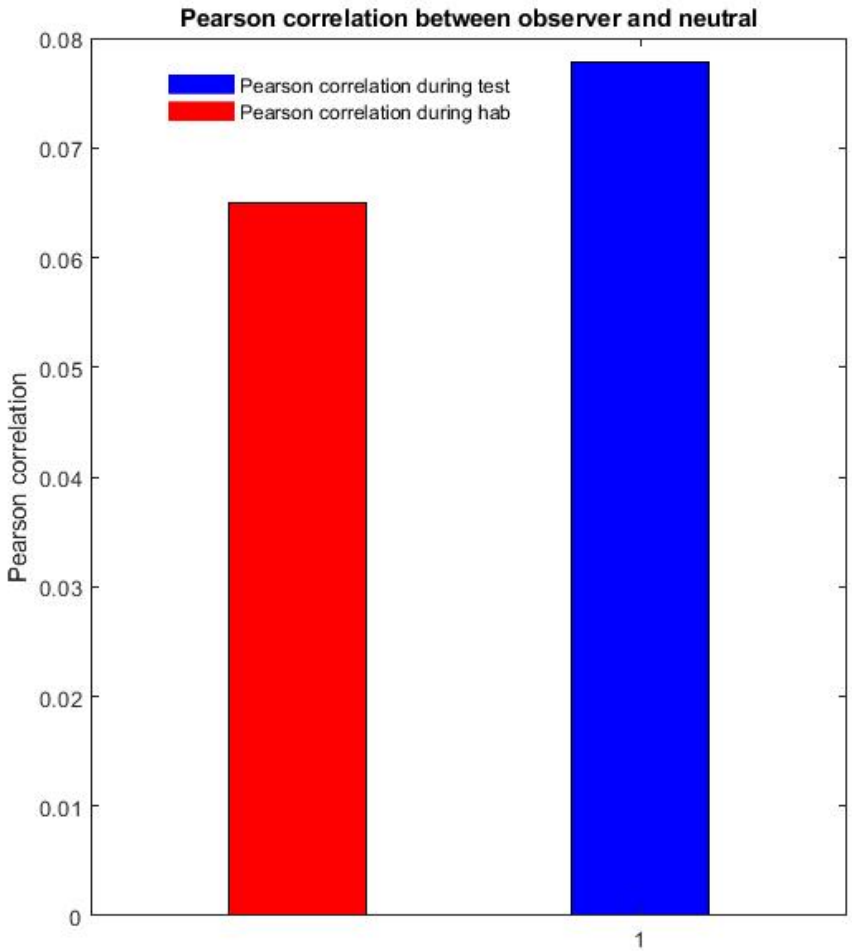
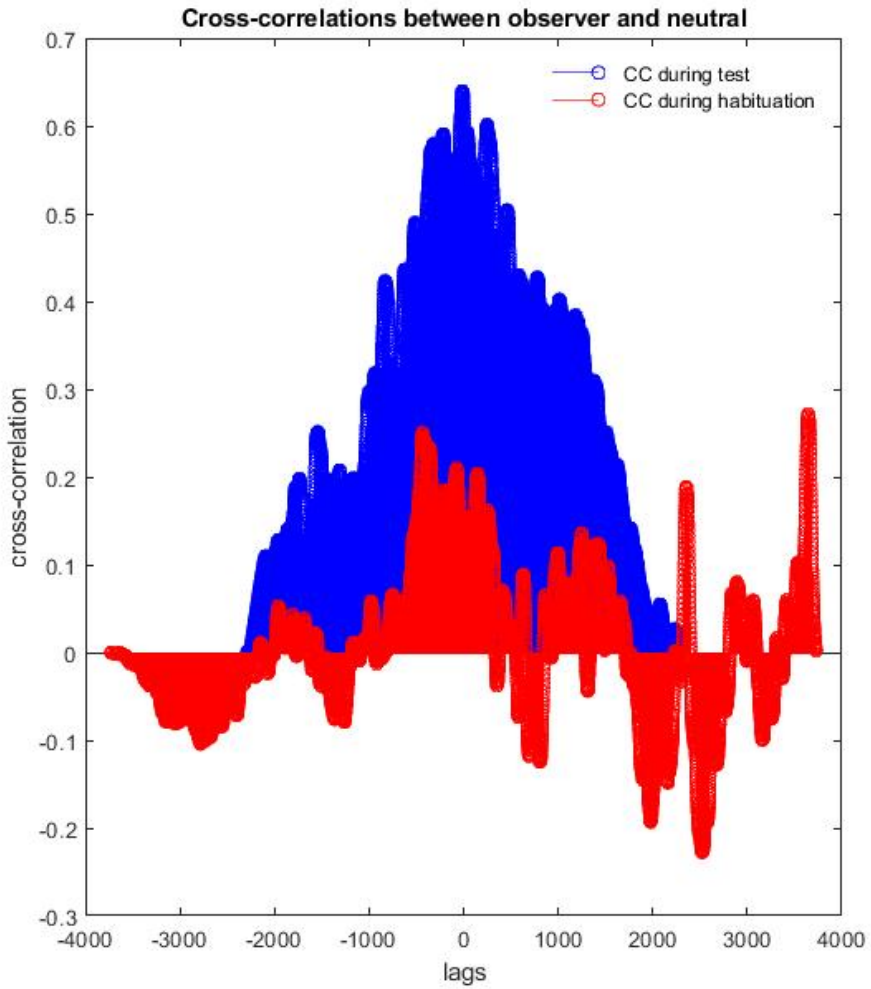
First data: observer vs stressed



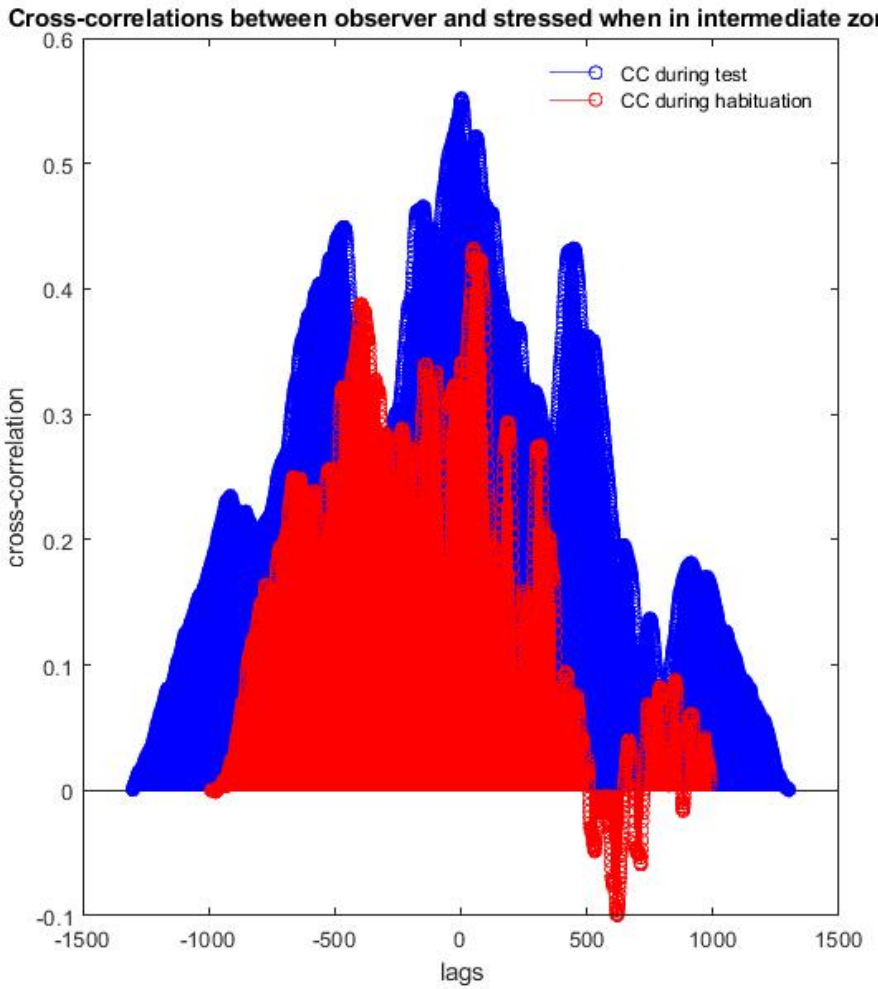


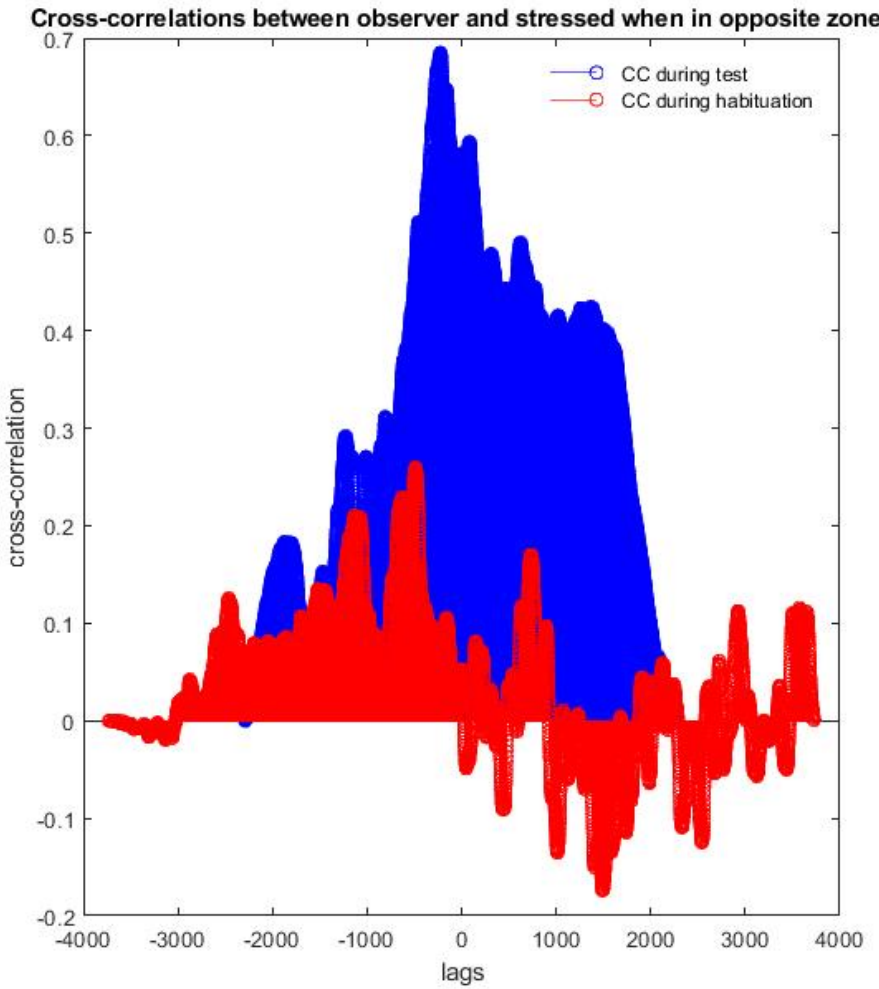
First data: observer vs neutral



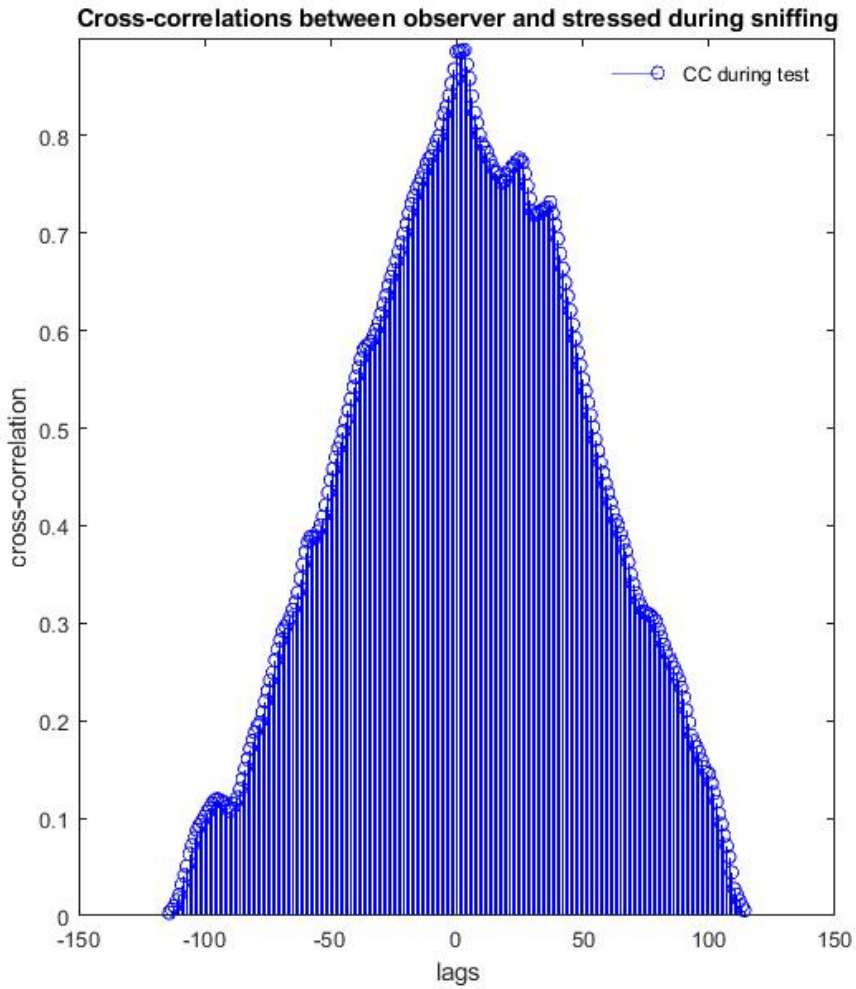


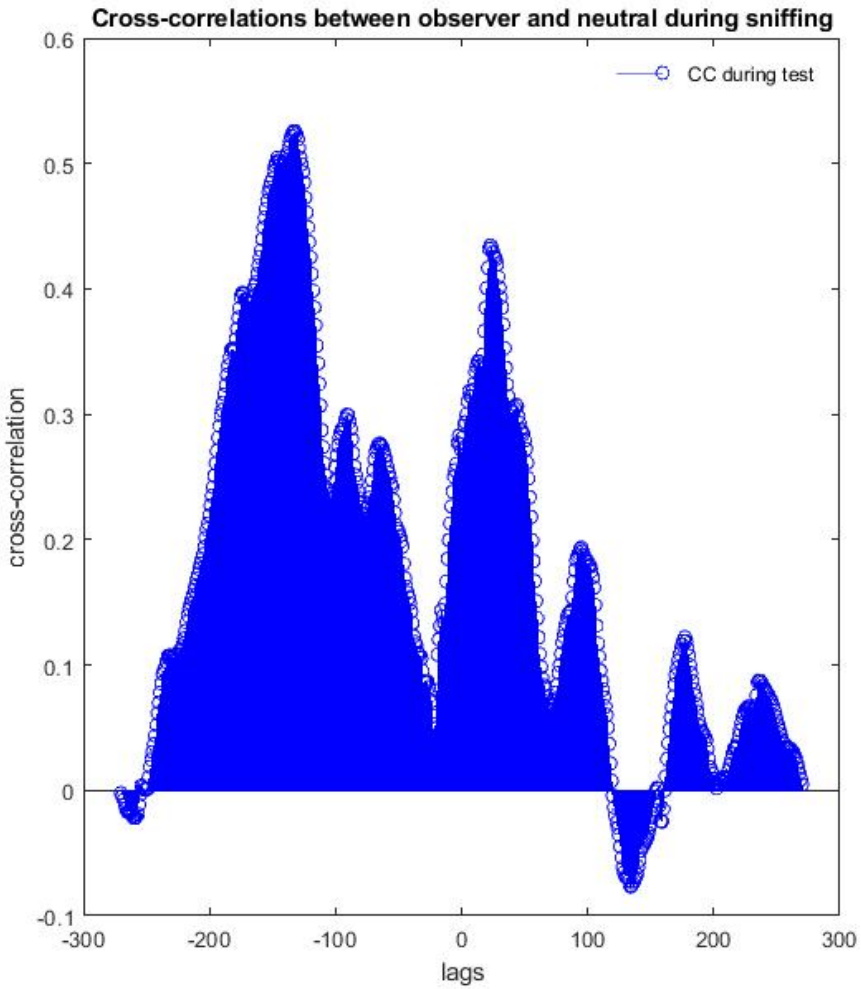
First data: observer vs stressed distant





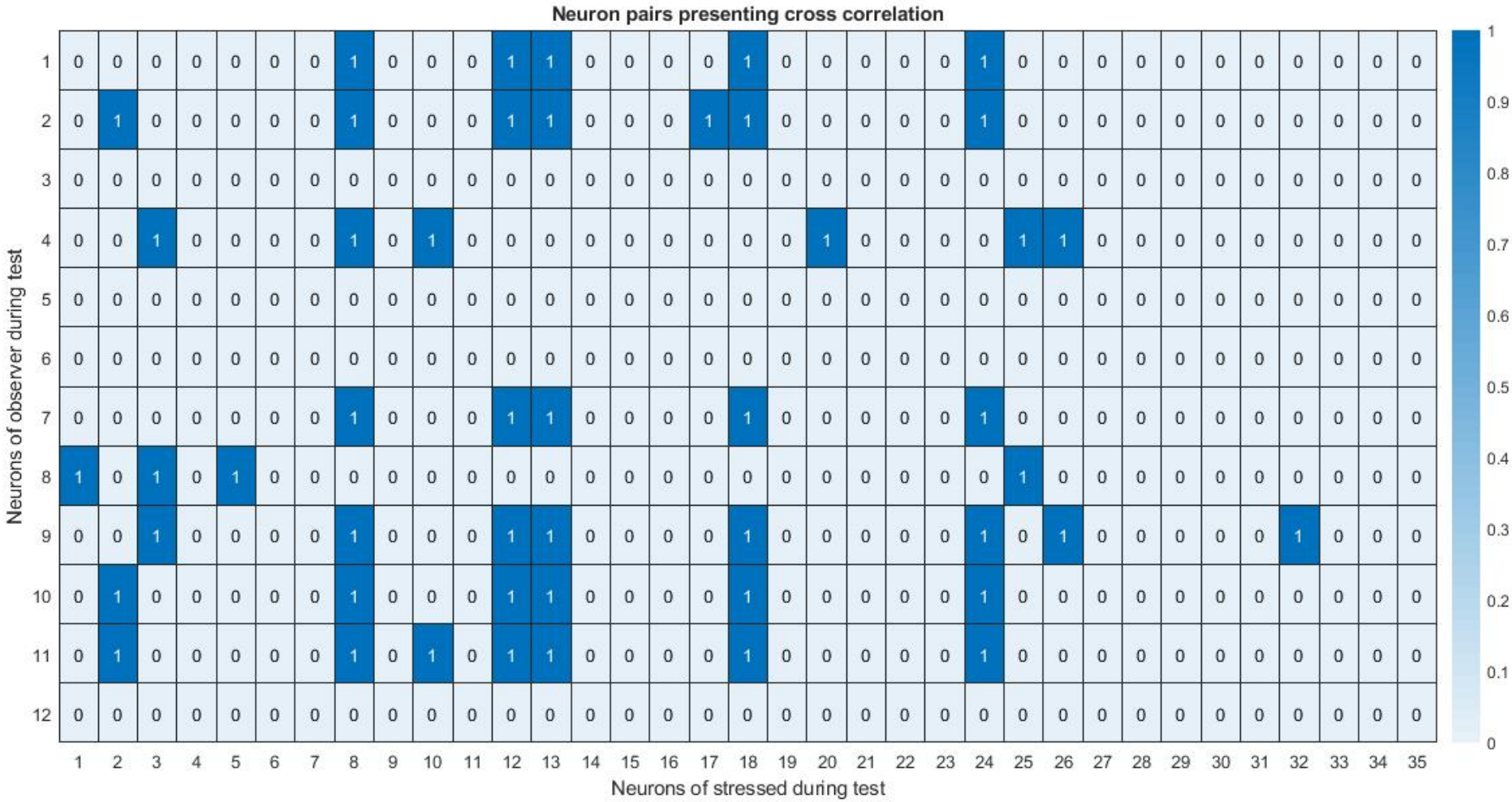
First data: observer vs neutral distant





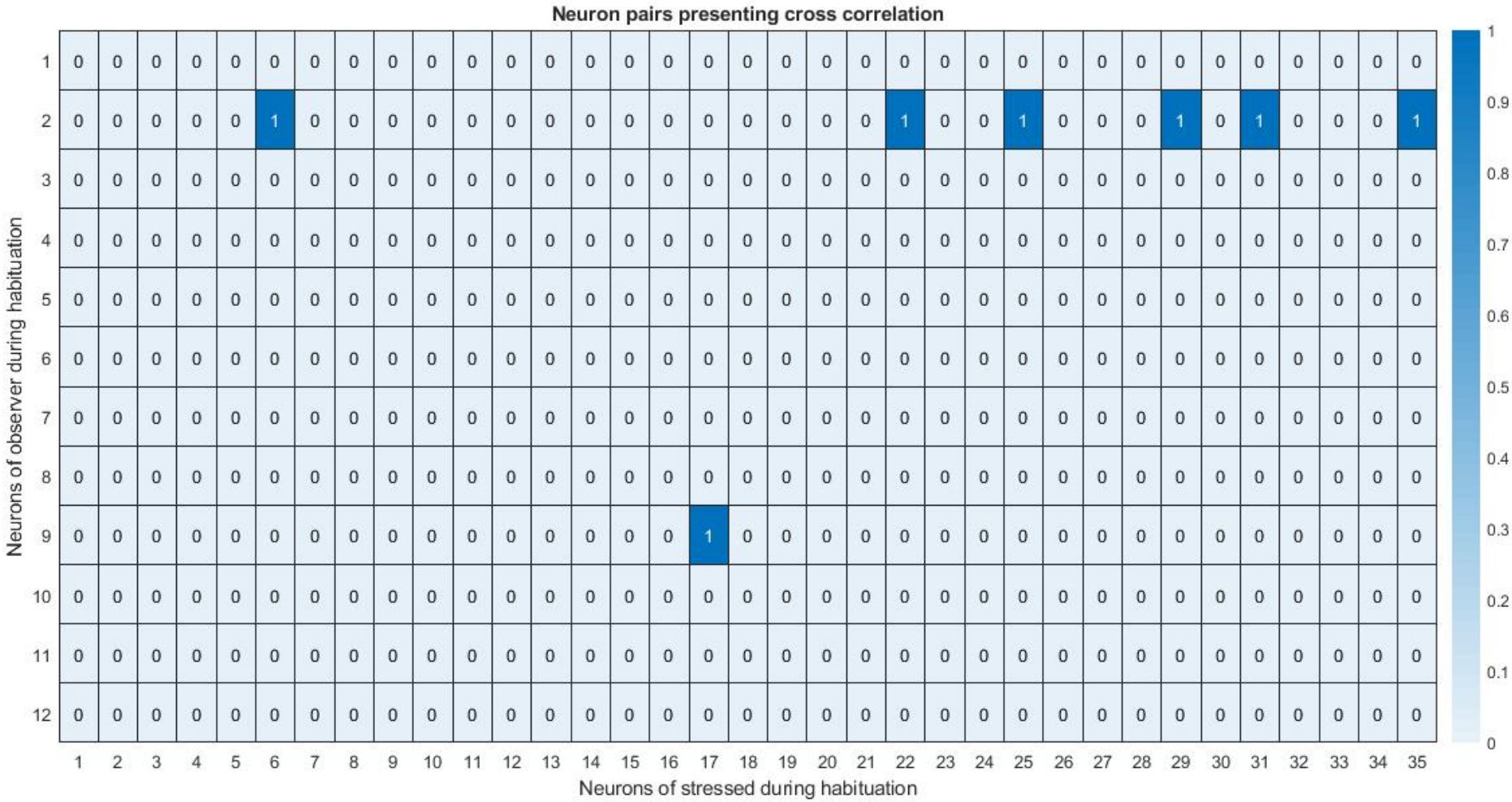
Neuron pairs synchronization: observer vs stressed during test (First data)

Fraction of pairs showing correlation = 11.43%



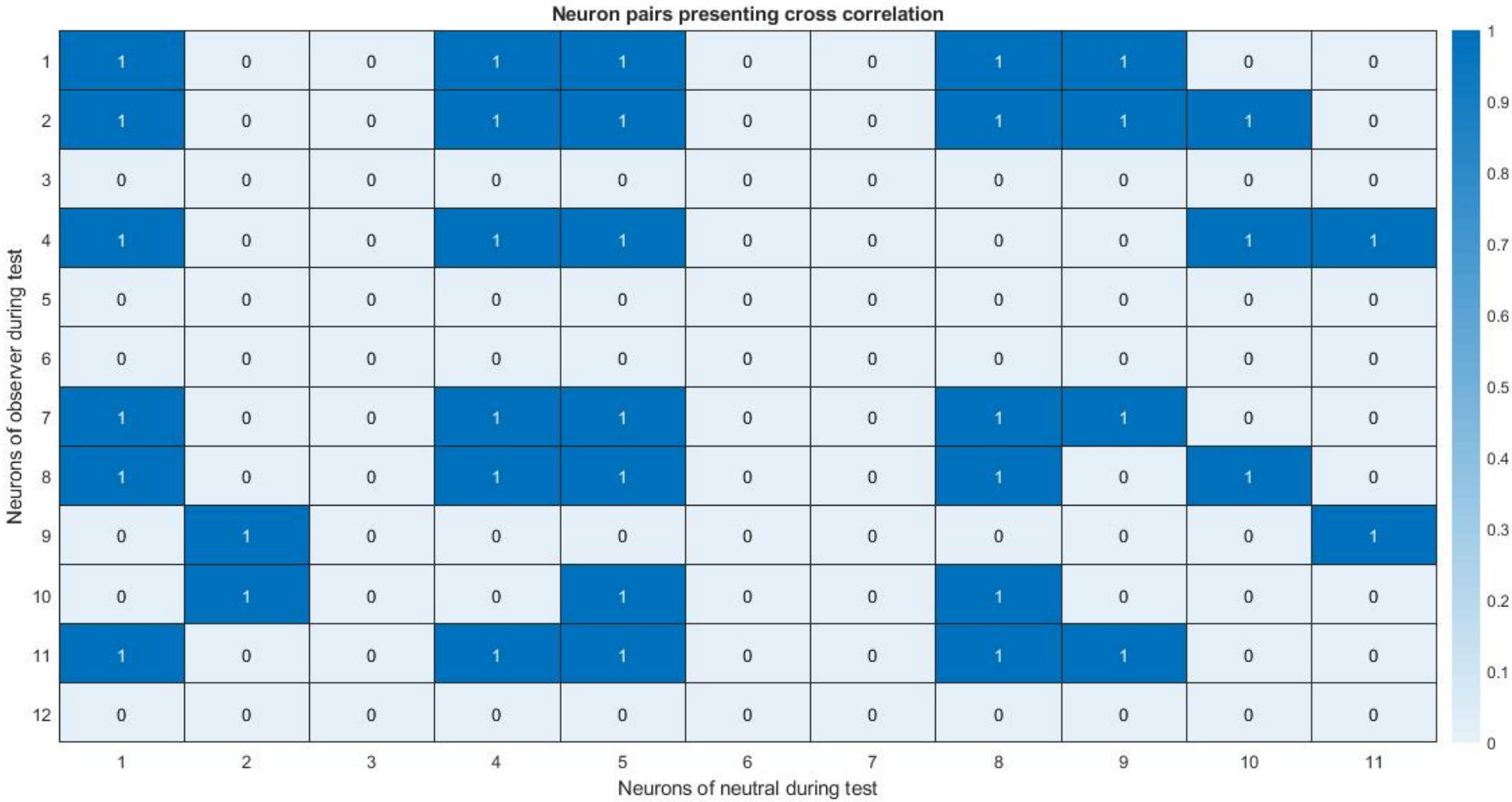
Neuron pairs synchronization: observer vs stressed during habituation (First data)

Fraction of pairs showing correlation = 1.66%



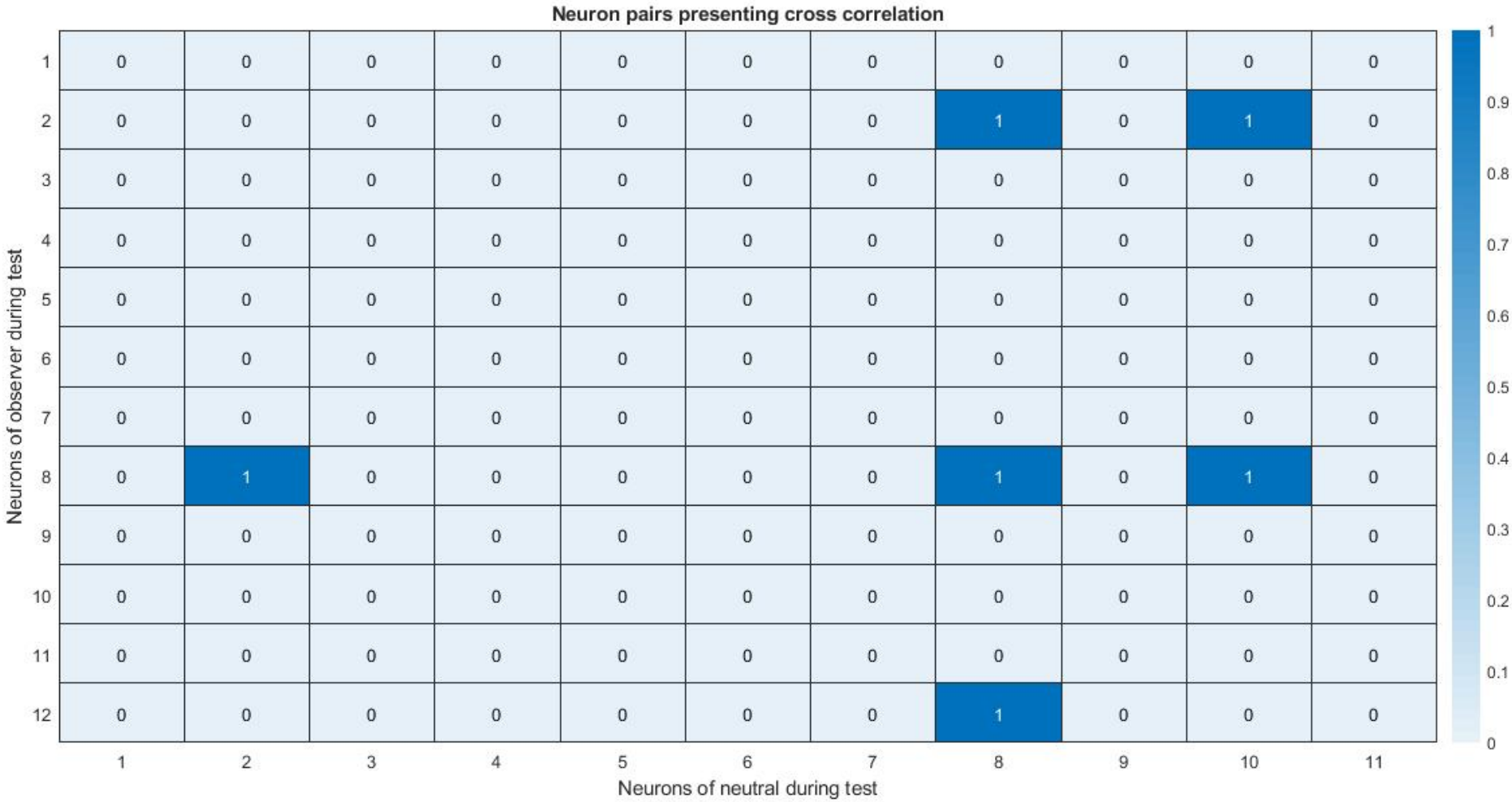
Neuron pairs synchronization: observer vs neutral during test (First data)

Fraction of pairs showing correlation = 23%

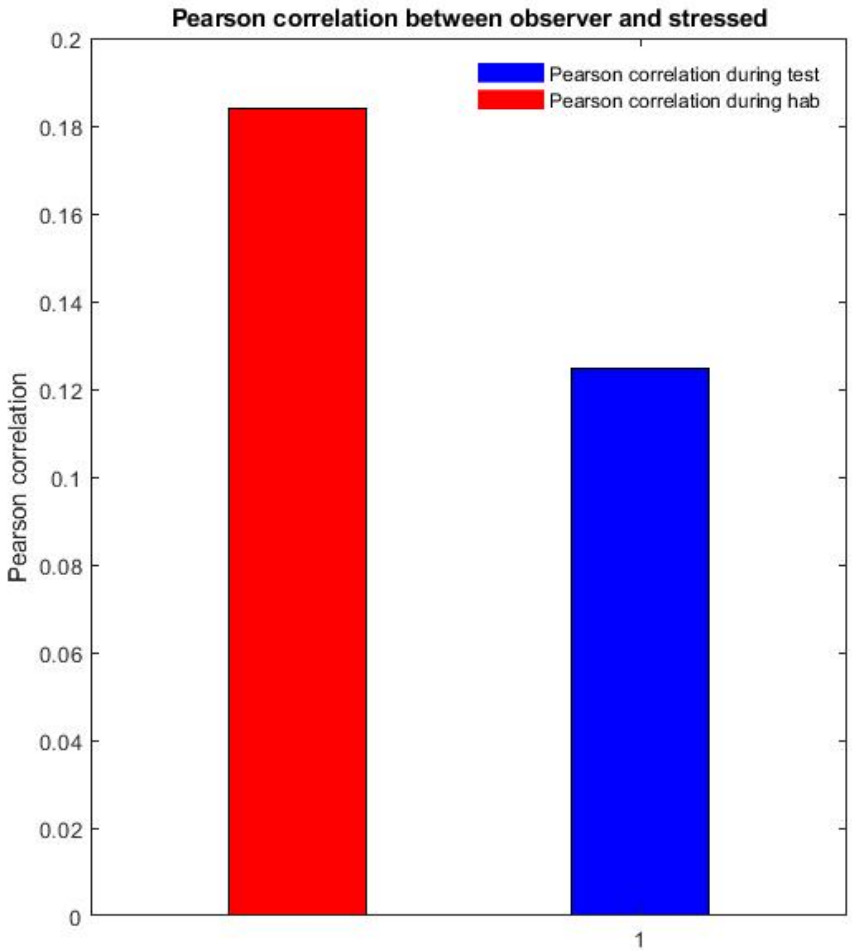


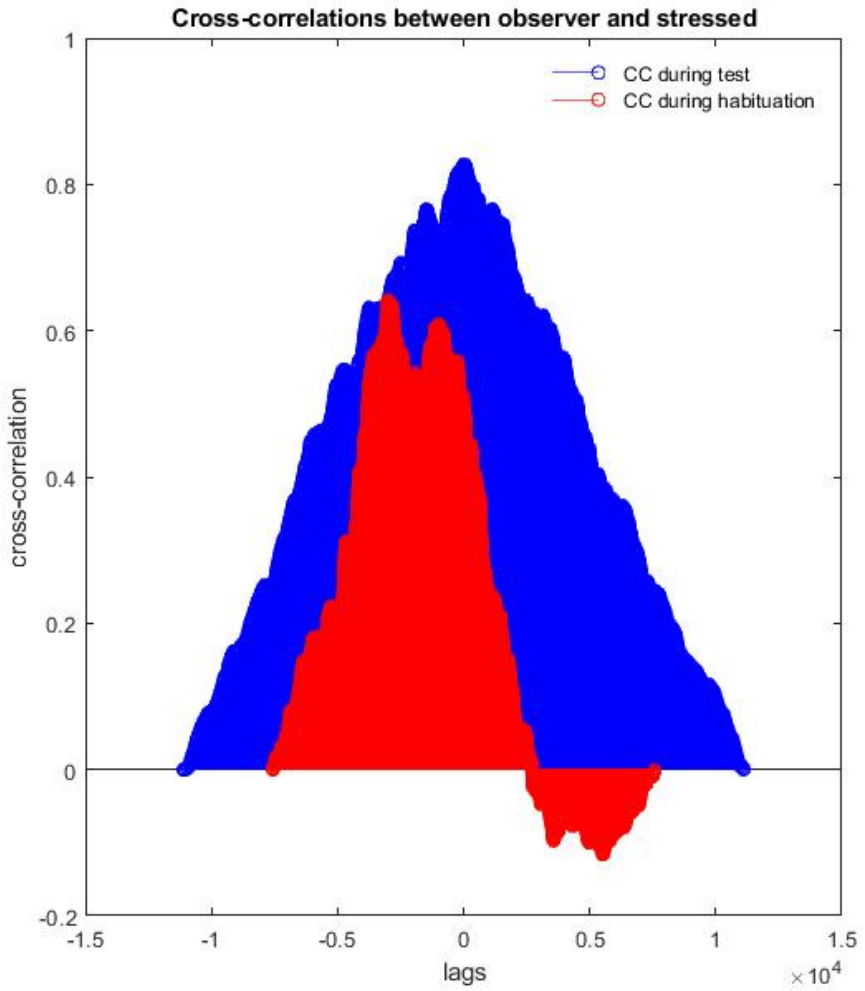
Neuron pairs synchronization: observer vs neutral during habituation (First data)

Fraction of pairs showing correlation = 4.5%

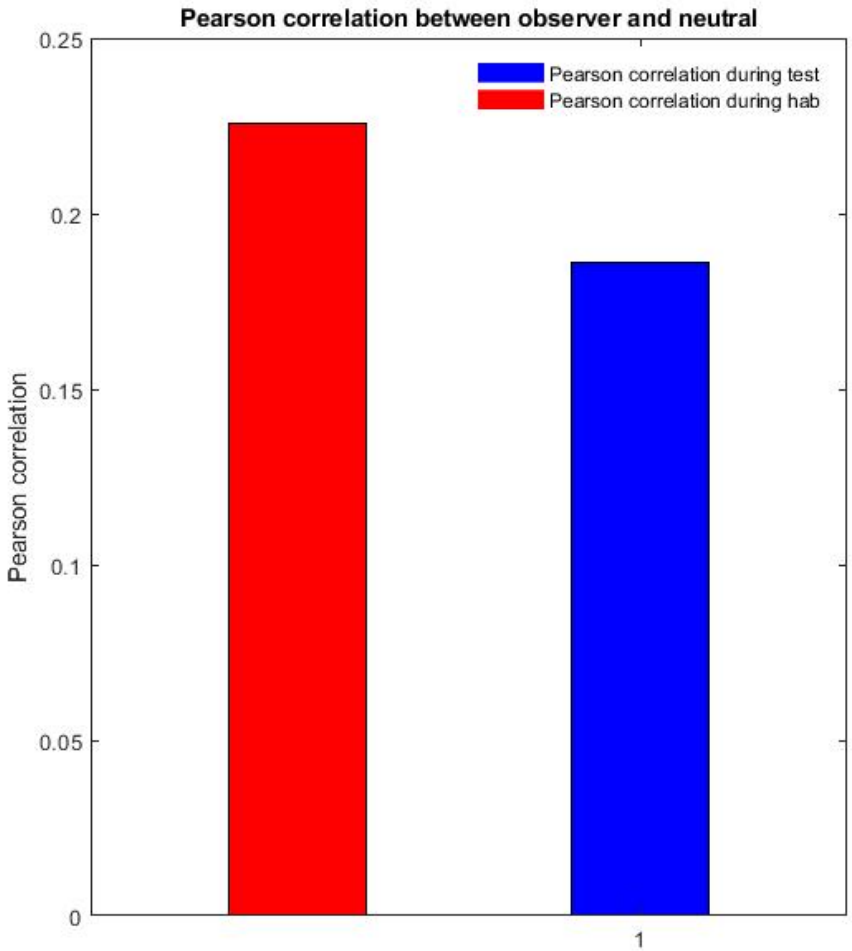


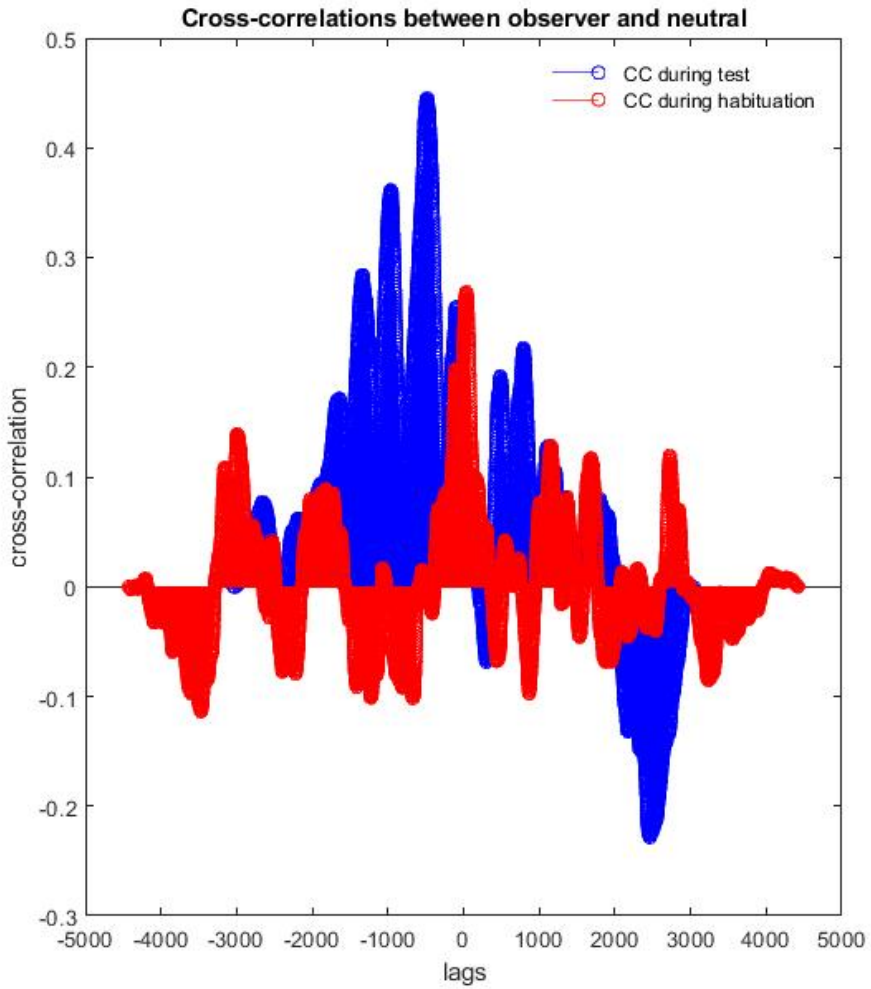
Second data: observer vs stressed



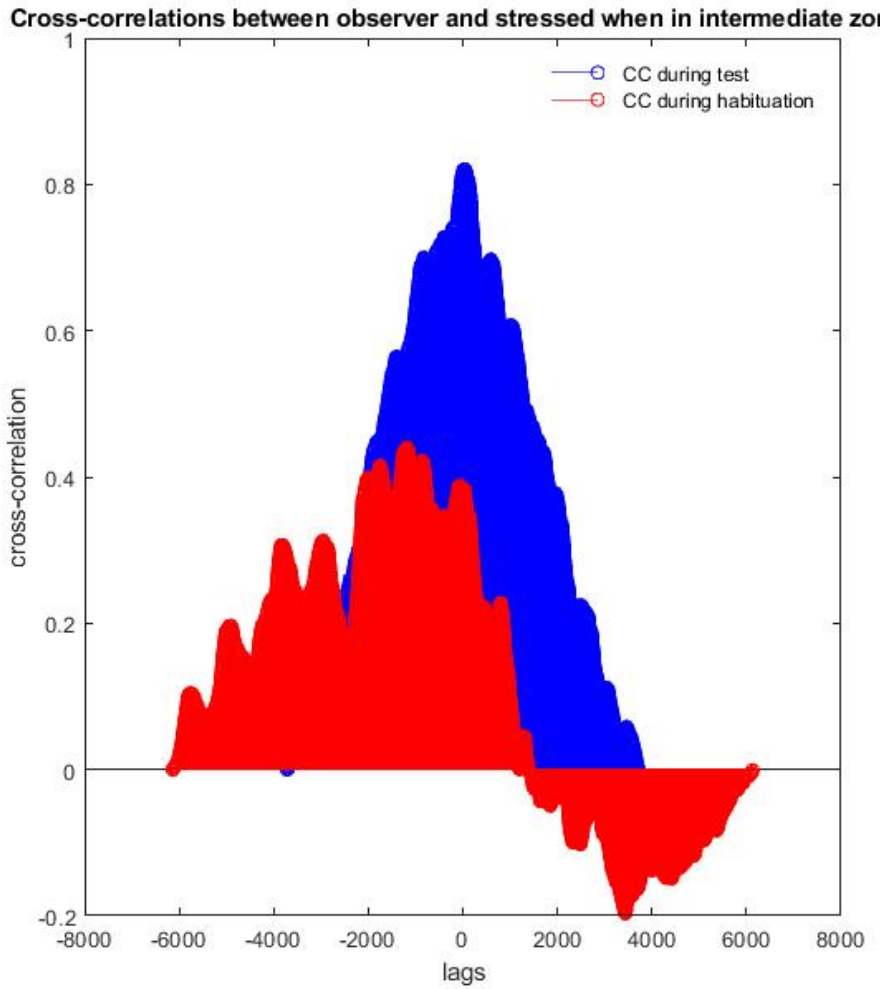


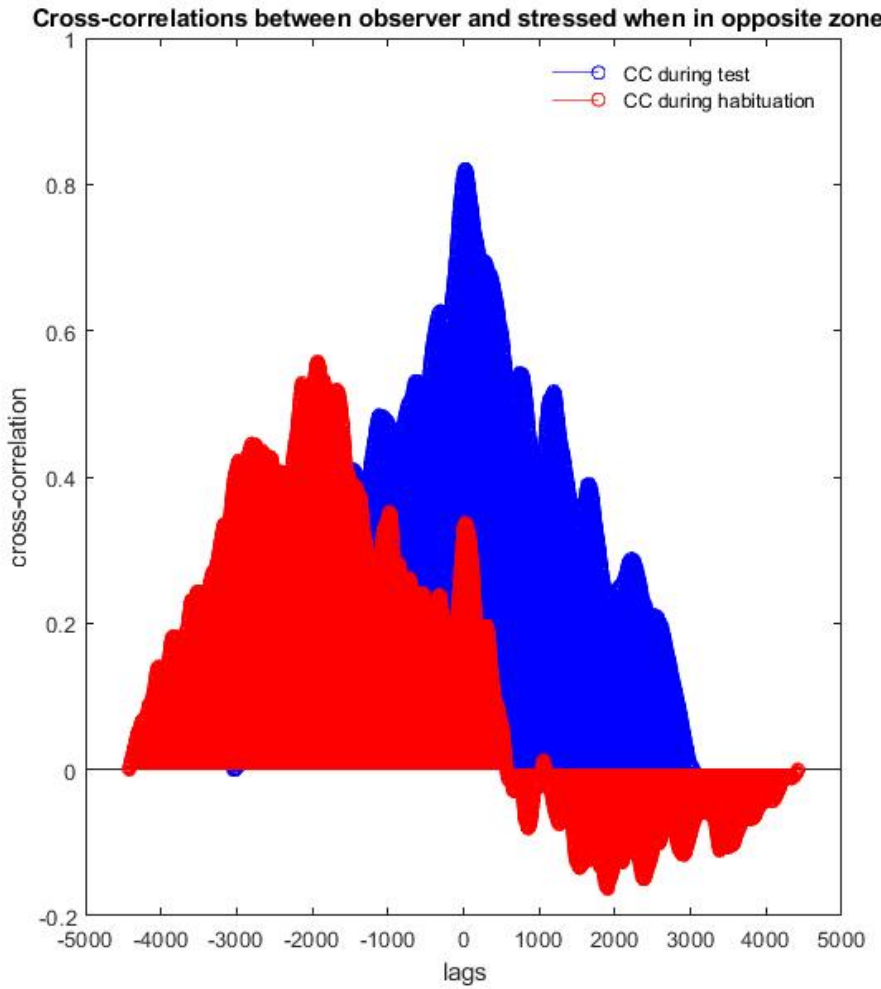
Second data: observer vs neutral



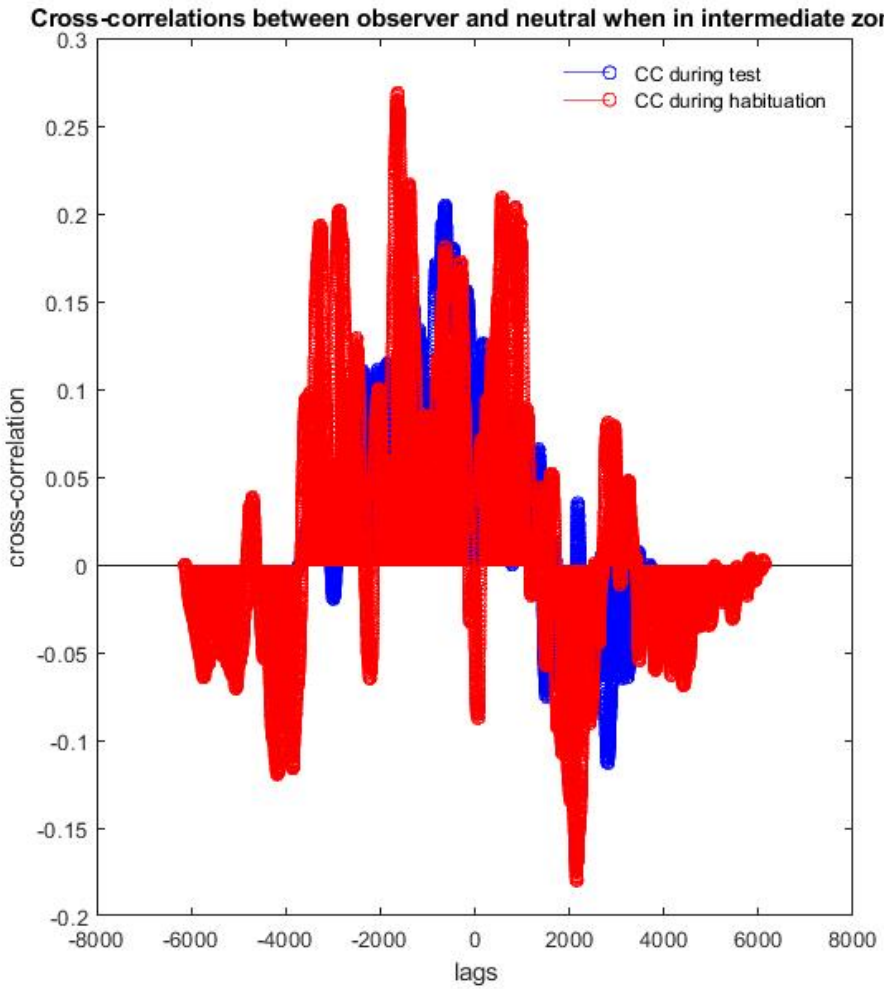


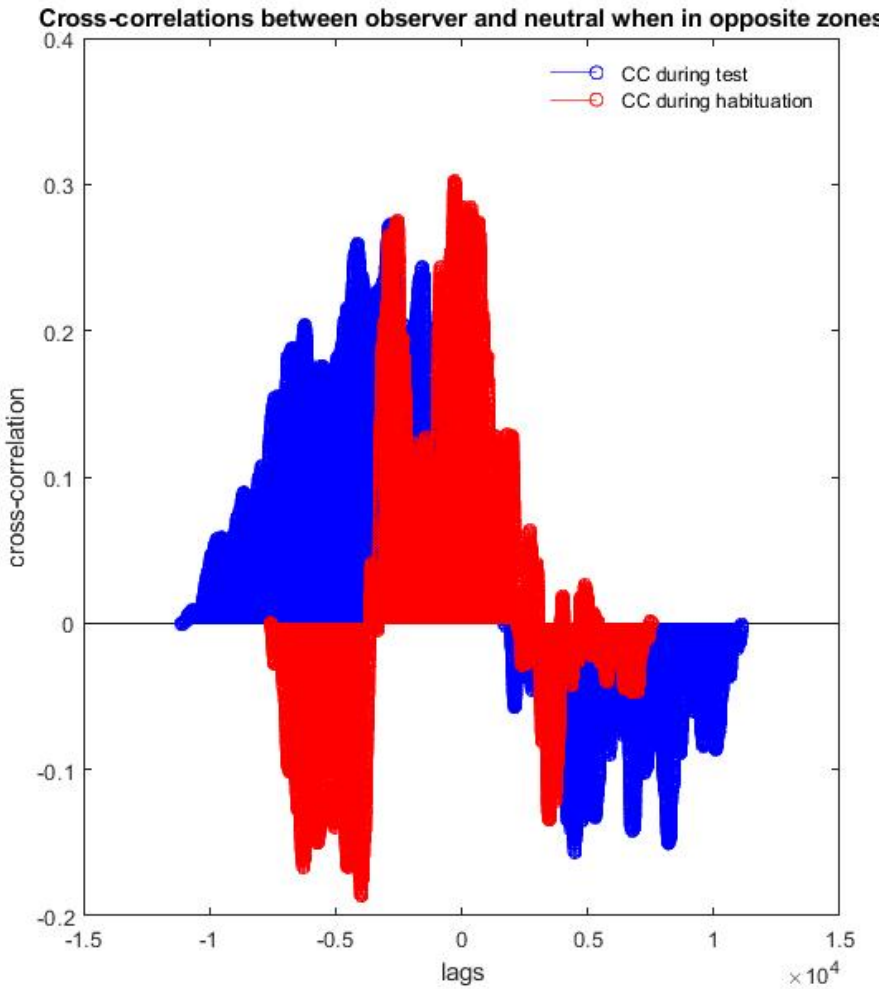
Second data: observer vs stressed distant



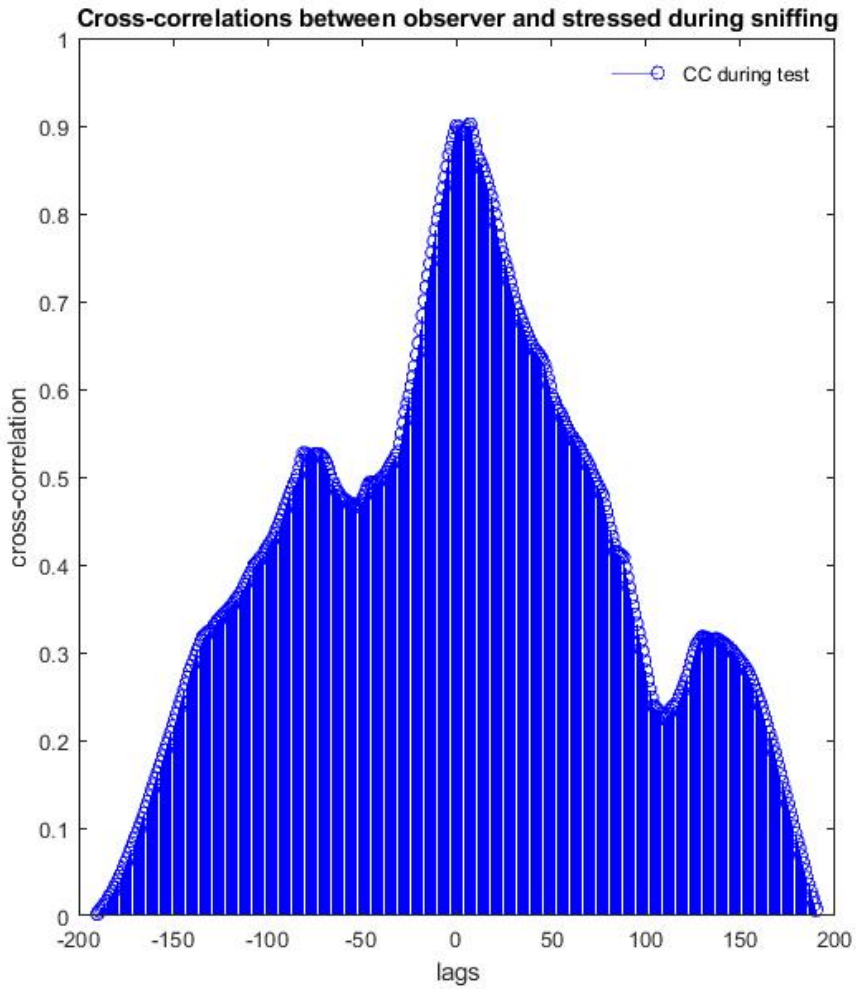


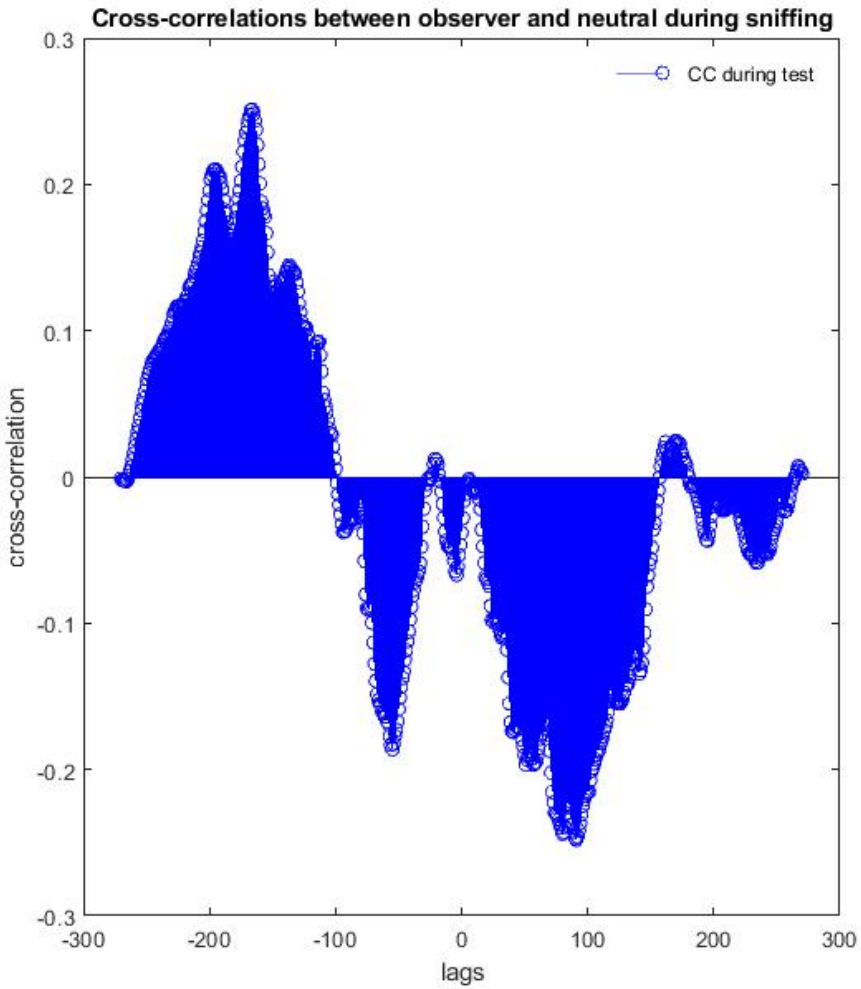
Second data: observer vs neutral distant





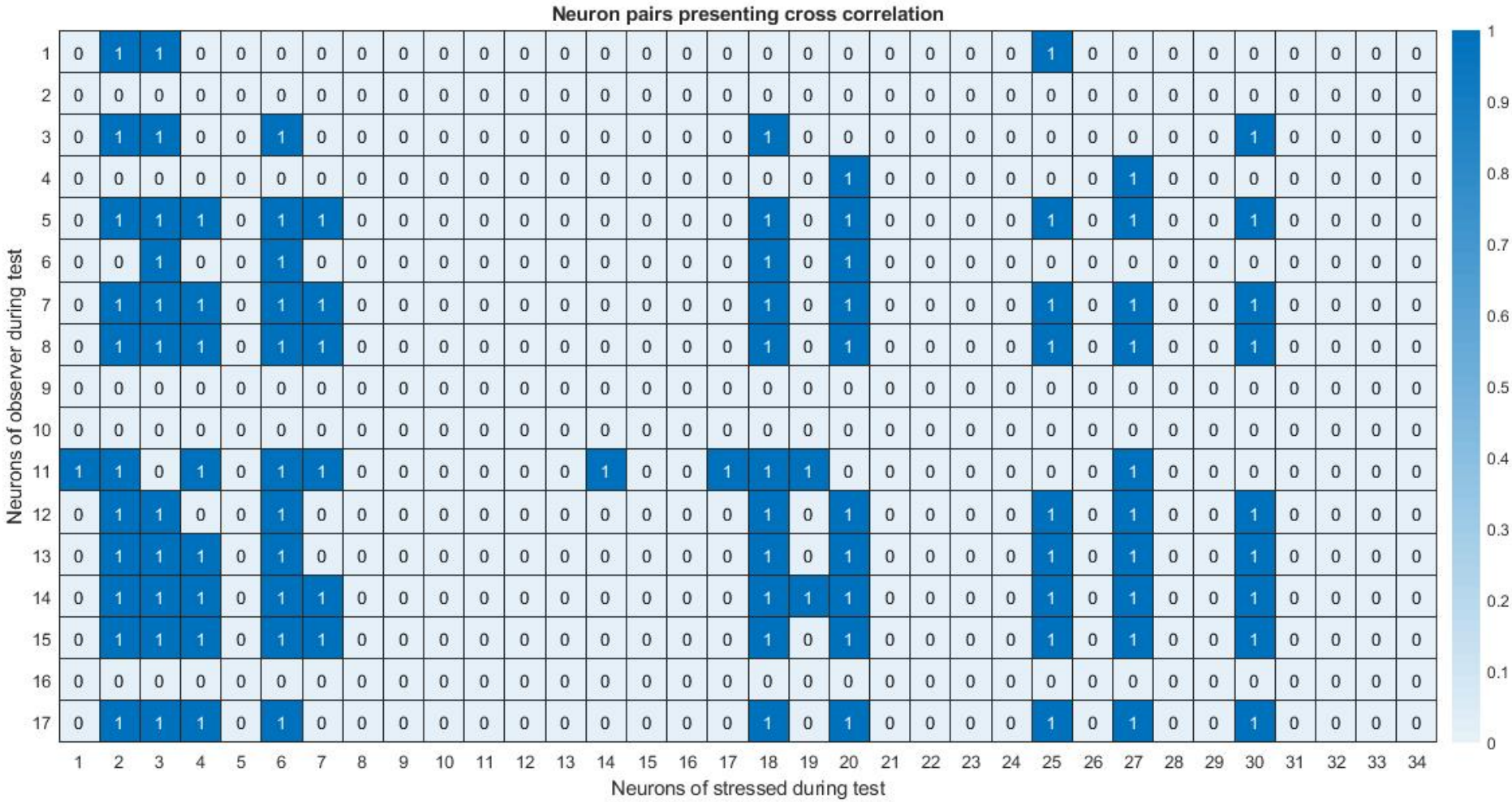
Second data: correlation during sniffing





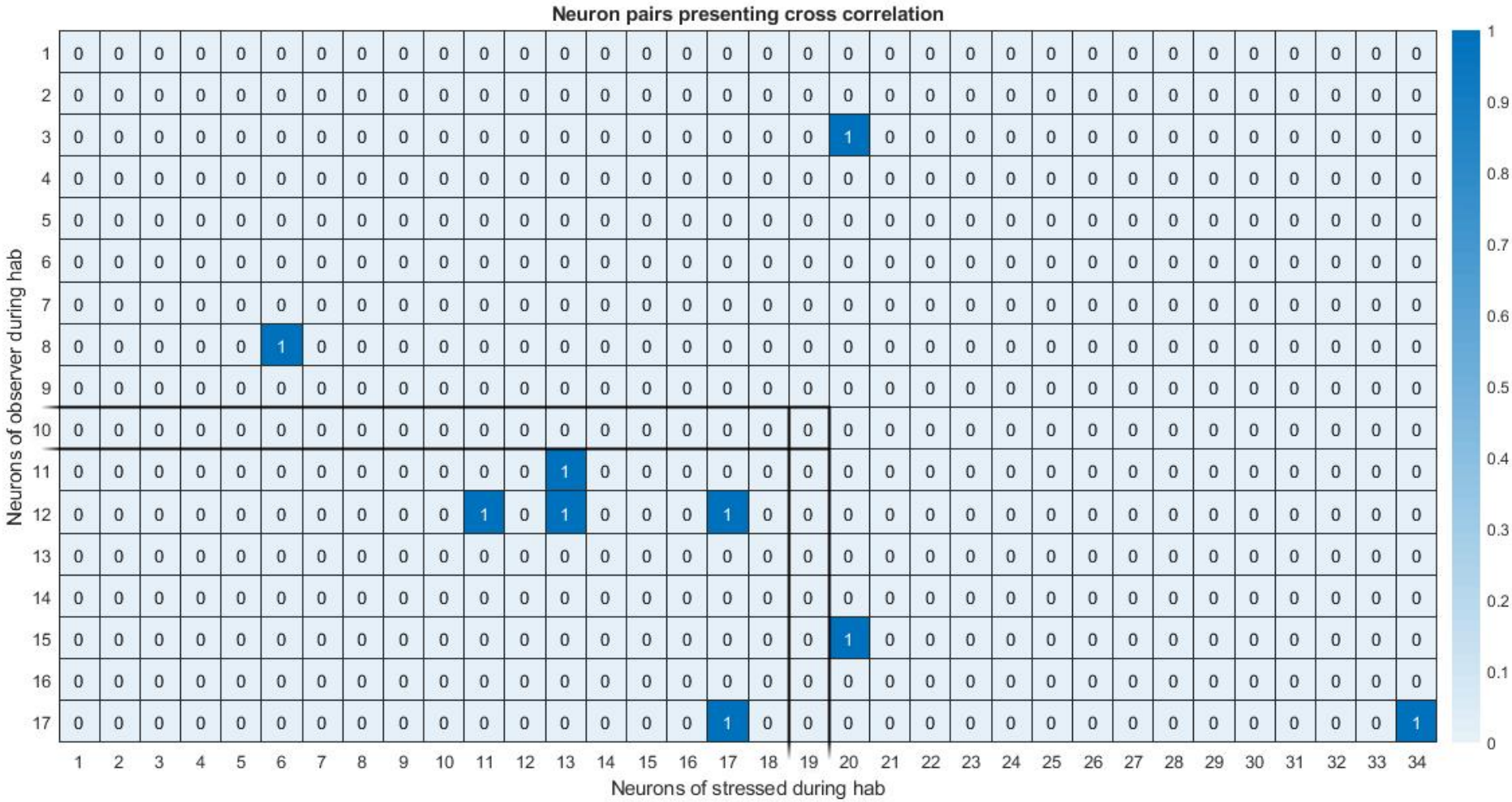
Neuron pairs synchronization: observer vs stressed during test (Second data)

Fraction of pairs showing correlation = 17.47%



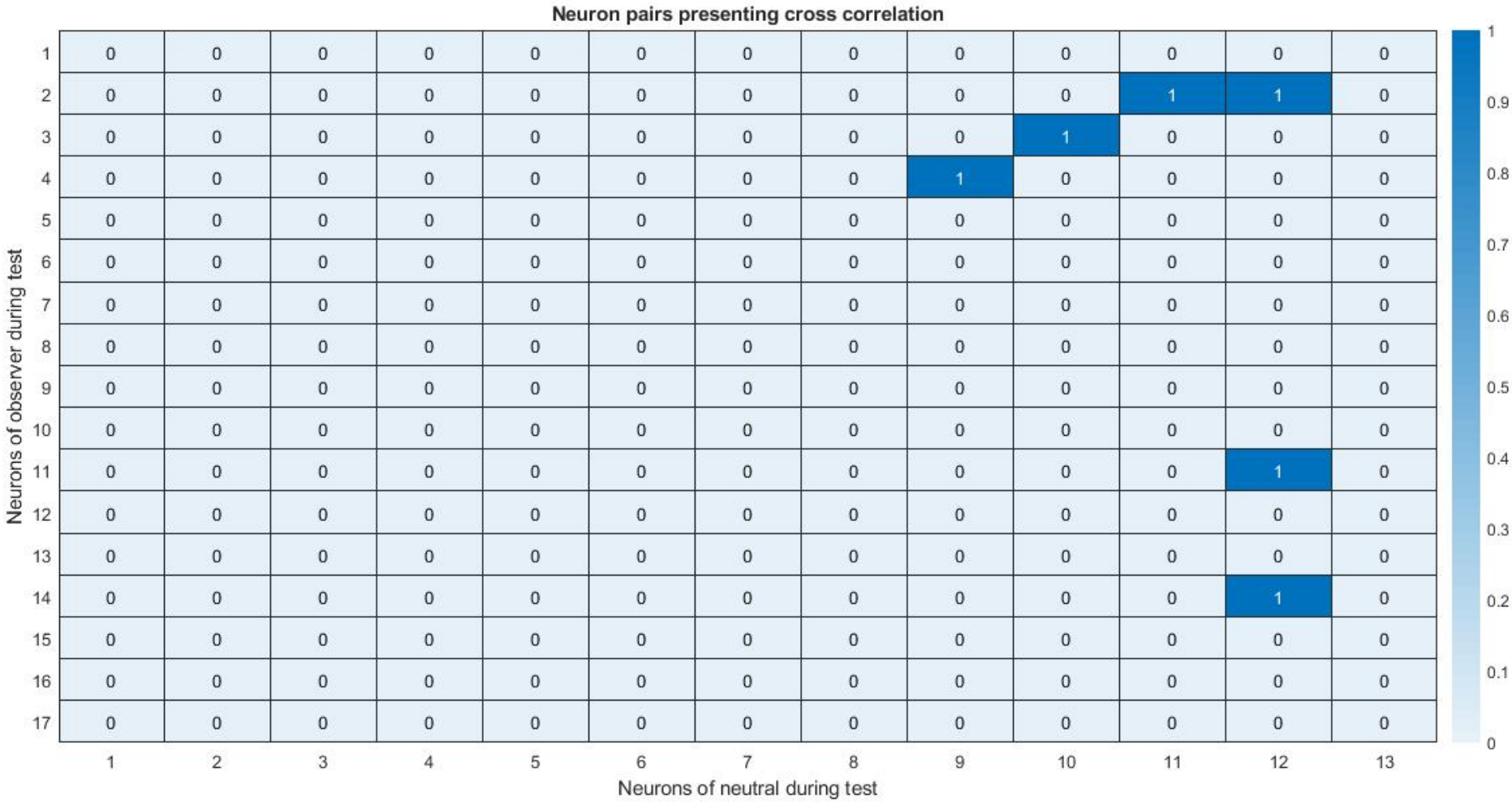
Neuron pairs synchronization: observer vs stressed during habituation (Second data)

Fraction of pairs showing correlation = 1.56%



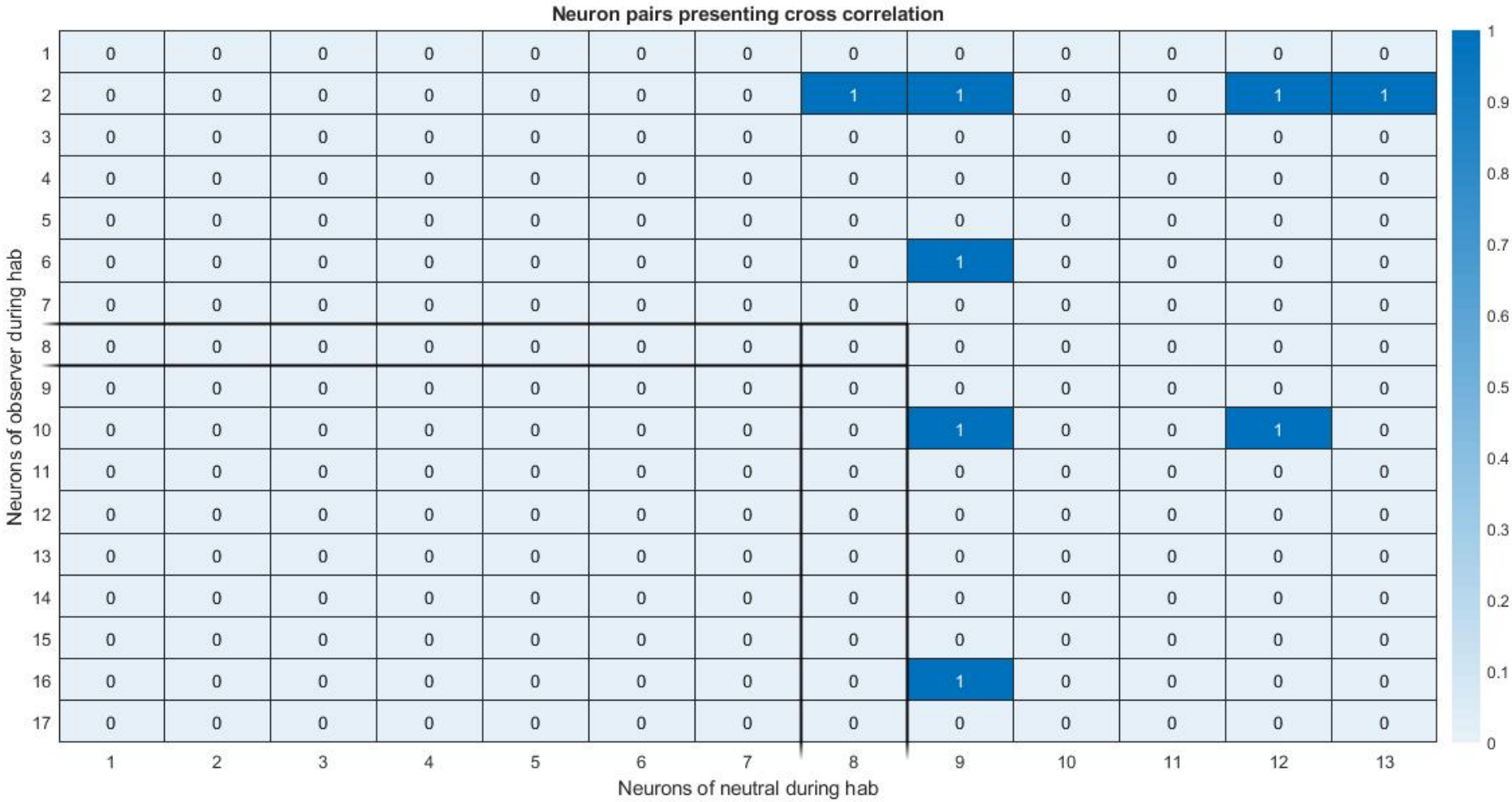
Neuron pairs synchronization: observer vs neutral during test (Second data)

Fraction of pairs showing correlation = 2.71%



Neuron pairs synchronization: observer vs neutral during habituation (Second data)

Fraction of pairs showing correlation = 3.62%



Conclusions

- From the first batch of data we can observe a growth in the cross correlation between mice overall activities from habituation to test, both for the pairs observer/stressed and observer/neutral, with an higher correlation in first one
- The highest correlation is observed during the sniffing between observer and stressed (but not between observer and neutral)
- In the analysis of the neuron pairs correlations we have similar results, with more pairs showing synchronization during test compared to the habituation
- As for the relationship between observer and stressed, the same results seems to appear in the second batch of data
- However, for this batch no significant correlation seems to appear between observer and neutral