S1: User Study Tasks

1 Interaction

a) Reduce the amount of edges shown for all connections (threshold).
b) Change the current frequency.
c) Rotate the graph.
d) Move the TPL. Observe and describe the effects it has.
e) Select one origin electrode and describe the changes (additional heatmap).
f) Reset the selection.
g) Select one edge and describe the changes (additional heatmap).

2 Spatial recognition

For the following task, the threshold will be fixed to show a specific number of edges. The user is not allowed to change the threshold, the frequency or select an electrode or edge. Pick a point on an edge of your choice in the middle of the graph. Follow the edge to determine its origin and destination. Say out loud on what hemispheres the origin and destination are from. Repeat these actions three times for different edges for each of the following predefined settings:

a) 18 Edges shown (Threshold = 0.38), TSC Graph disabled
b) 18 Edges shown (Threshold = 0.38), TSC Graph enabled (should use TPL)
c) 54 Edges shown (Threshold = 0.32), TSC Graph disabled
d) 54 Edges shown (Threshold = 0.32), TSC Graph enabled (should use TPL)

3 Heatmap Panel

a) Use the One-Frequency OD Matrix and move through time to look for interesting edges that are currently filtered out in the FXTC Graph.
b) Use the All-Frequencies OD Matrix and move through time to look for interesting connectivity values in other frequencies.
c) Select one electrode. Choose one edge for yourself and go to a time of interest. Now use the selection-dependent heatmap to observe all frequencies.