# Similarity Matrices

## Phase coupling

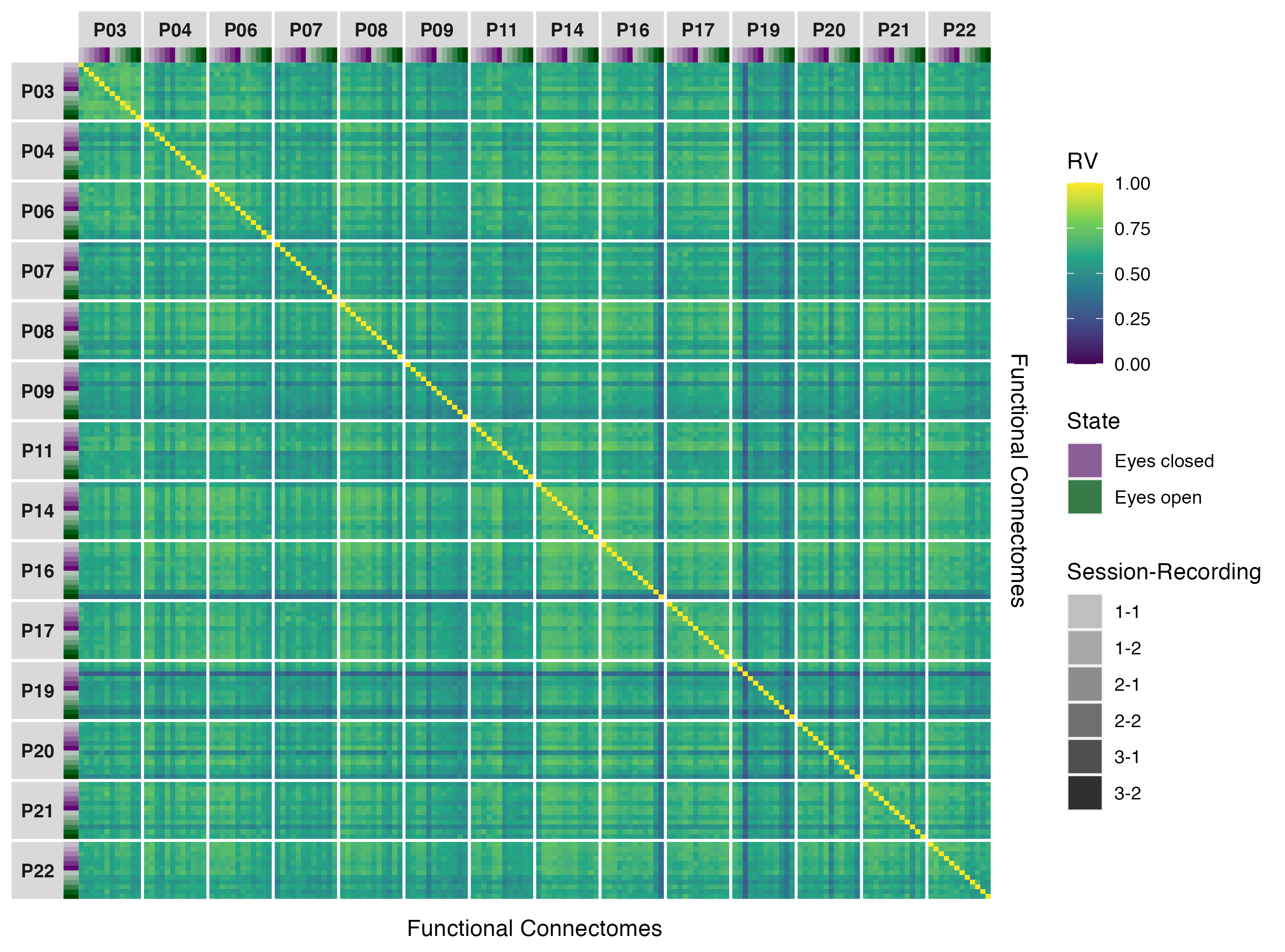


Figure 1: Similarity matrix showing functional connectome similarities within and between participants for phase coupling functional connectomes in the delta band.

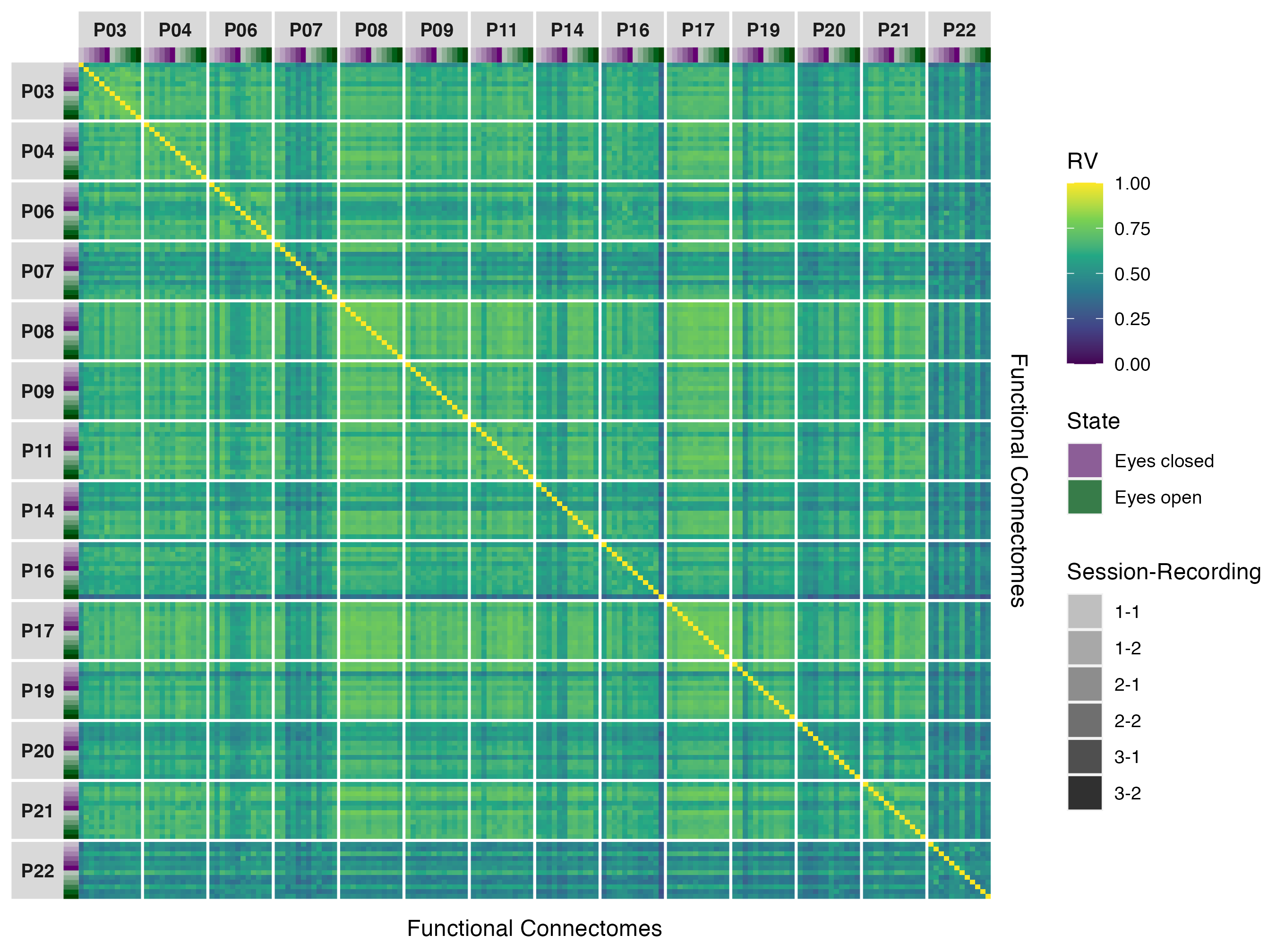


Figure 2: Similarity matrix showing functional connectome similarities within and between participants for phase coupling functional connectomes in the theta band.

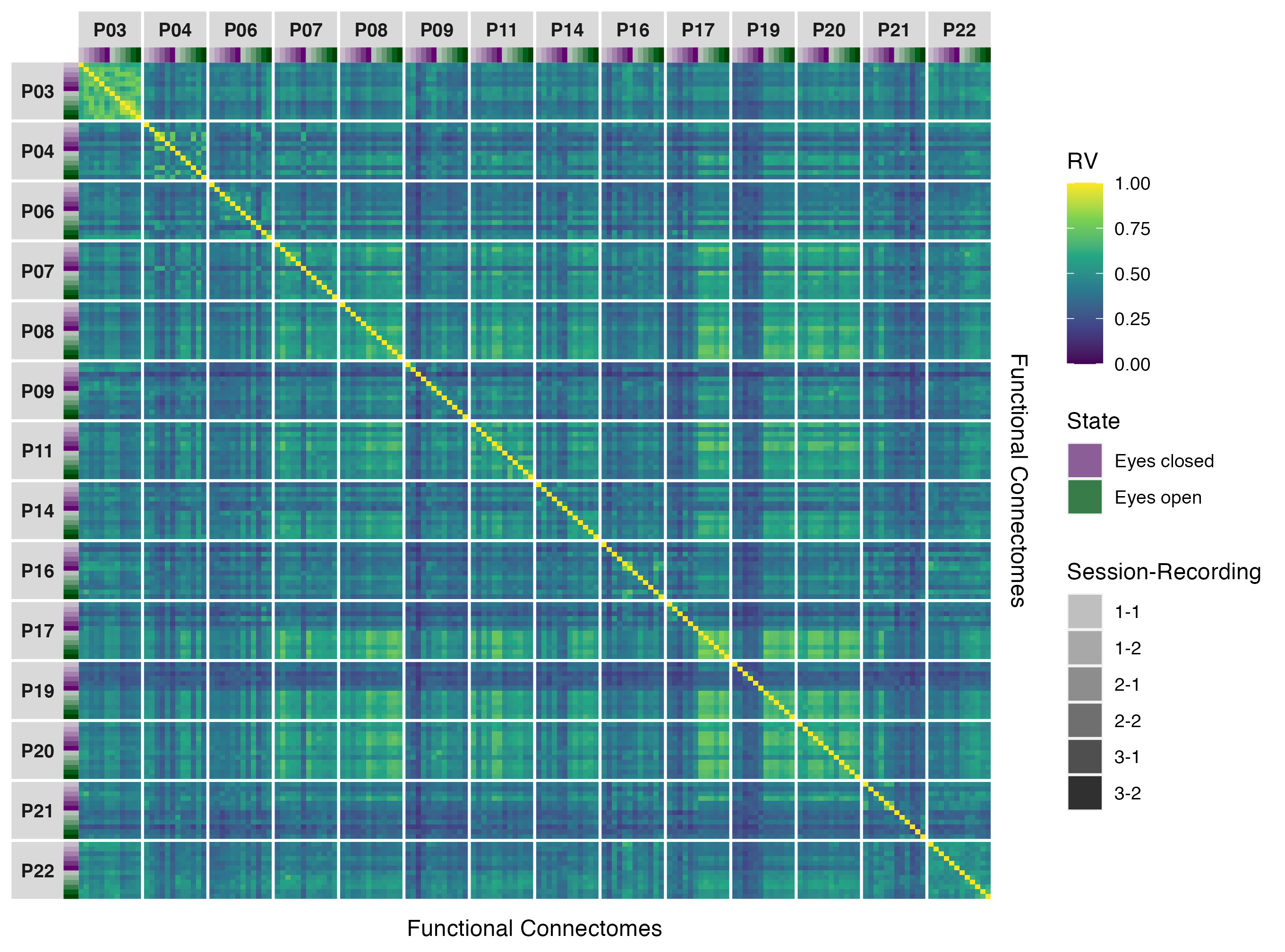


Figure 3: Similarity matrix showing functional connectome similarities within and between participants for phase coupling functional connectomes in the alpha band.

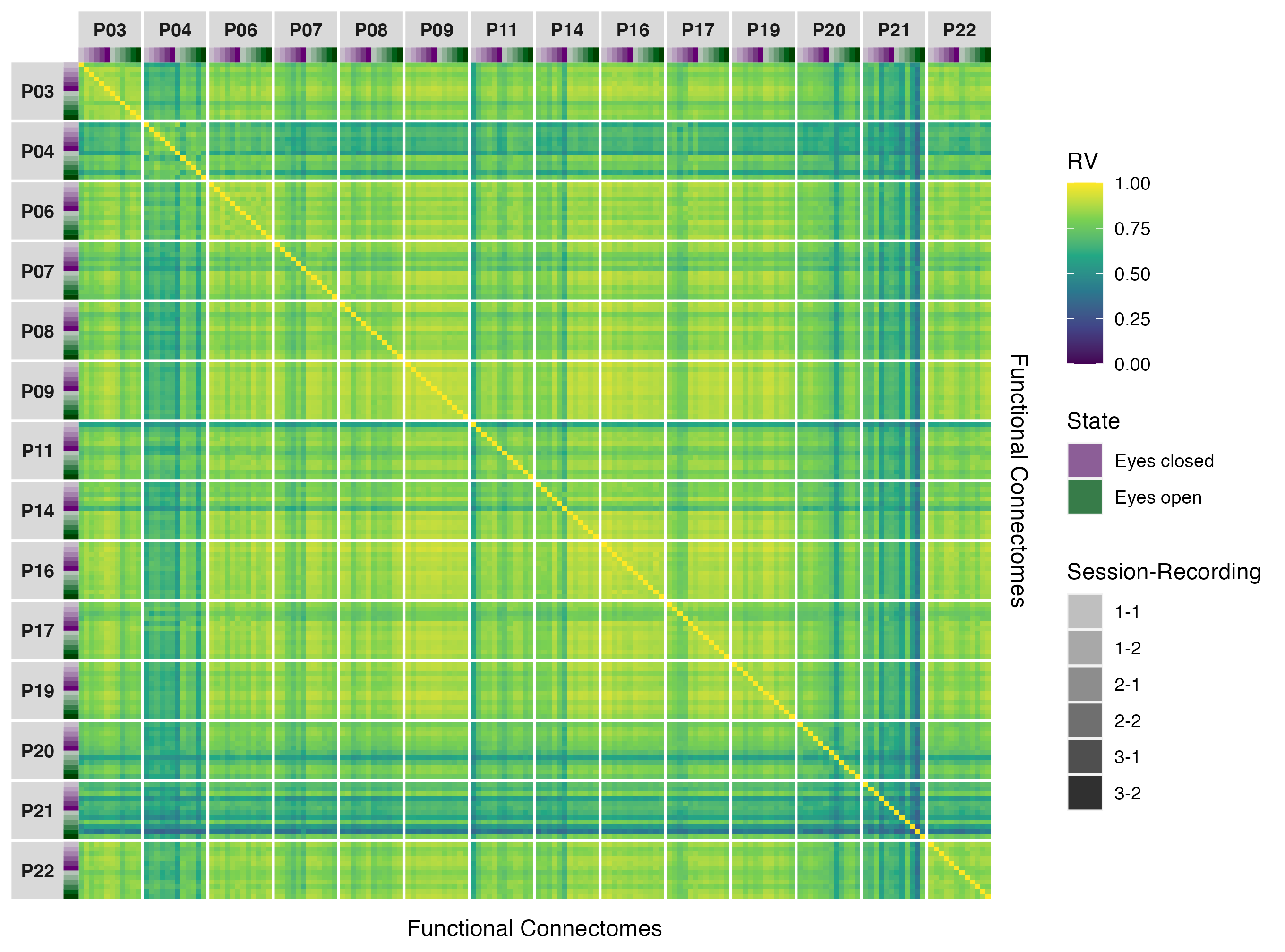


Figure 4: Similarity matrix showing functional connectome similarities within and between participants for phase coupling functional connectomes in the beta band.

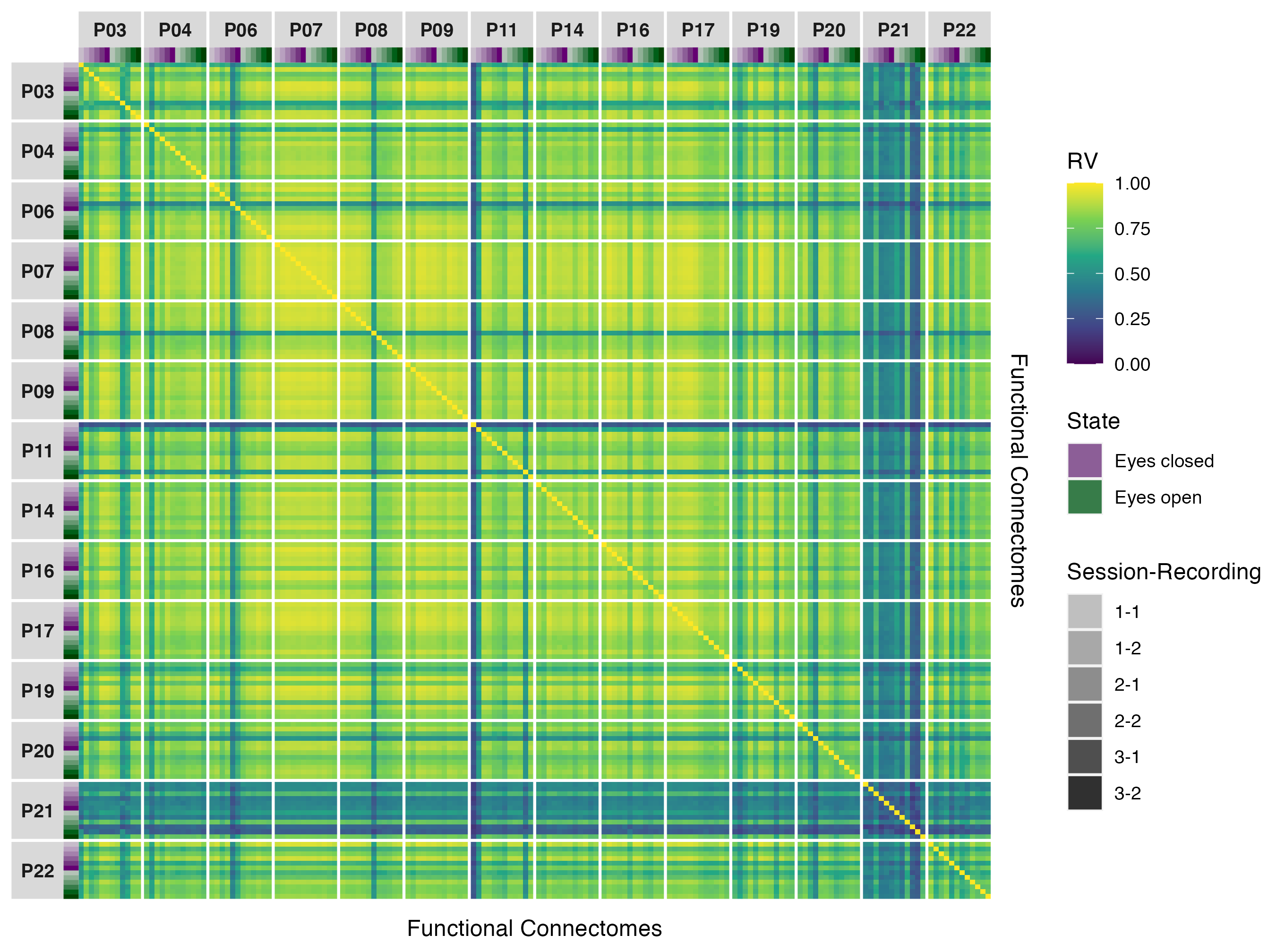


Figure 5: Similarity matrix showing functional connectome similarities within and between participants for phase coupling functional connectomes in the gamma band.

## Amplitude coupling

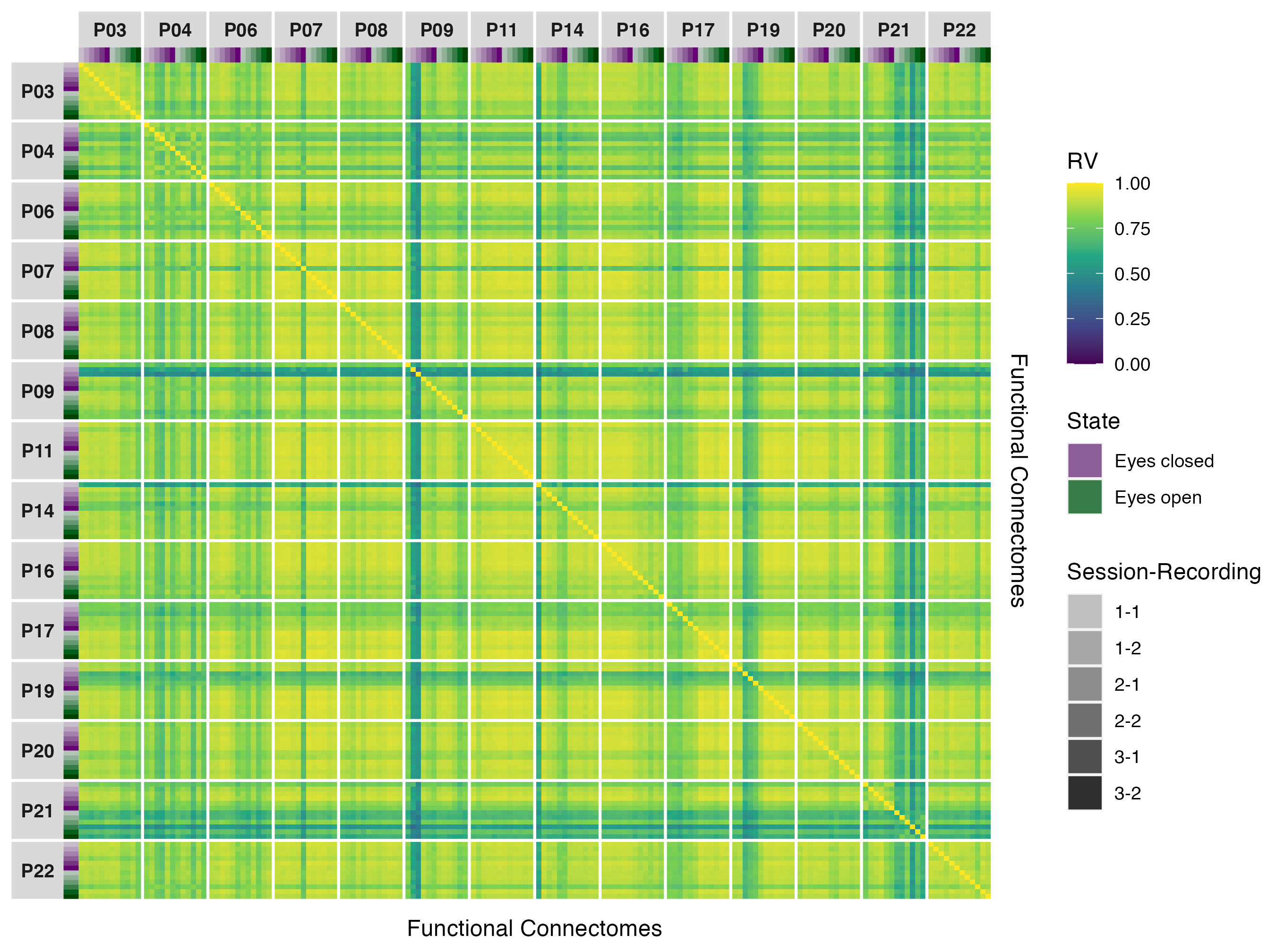


Figure 6: Similarity matrix showing functional connectome similarities within and between participants for amplitude coupling functional connectomes in the alpha band.

## Phase coupling (Hilbert transform)

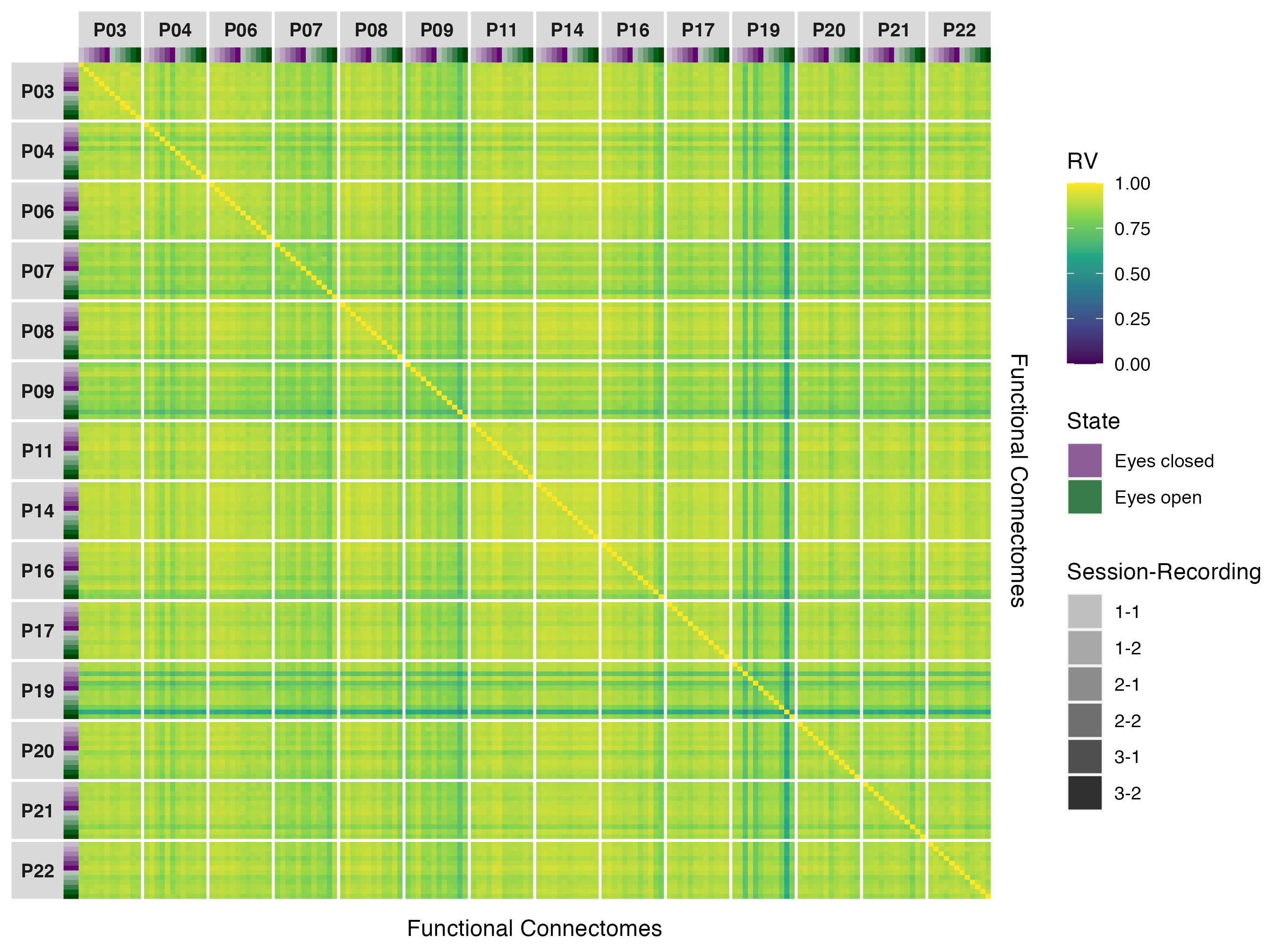


Figure 7: Similarity matrix showing functional connectome similarities within and between participants for phase coupling (Hilbert transform) functional connectomes in the delta band.

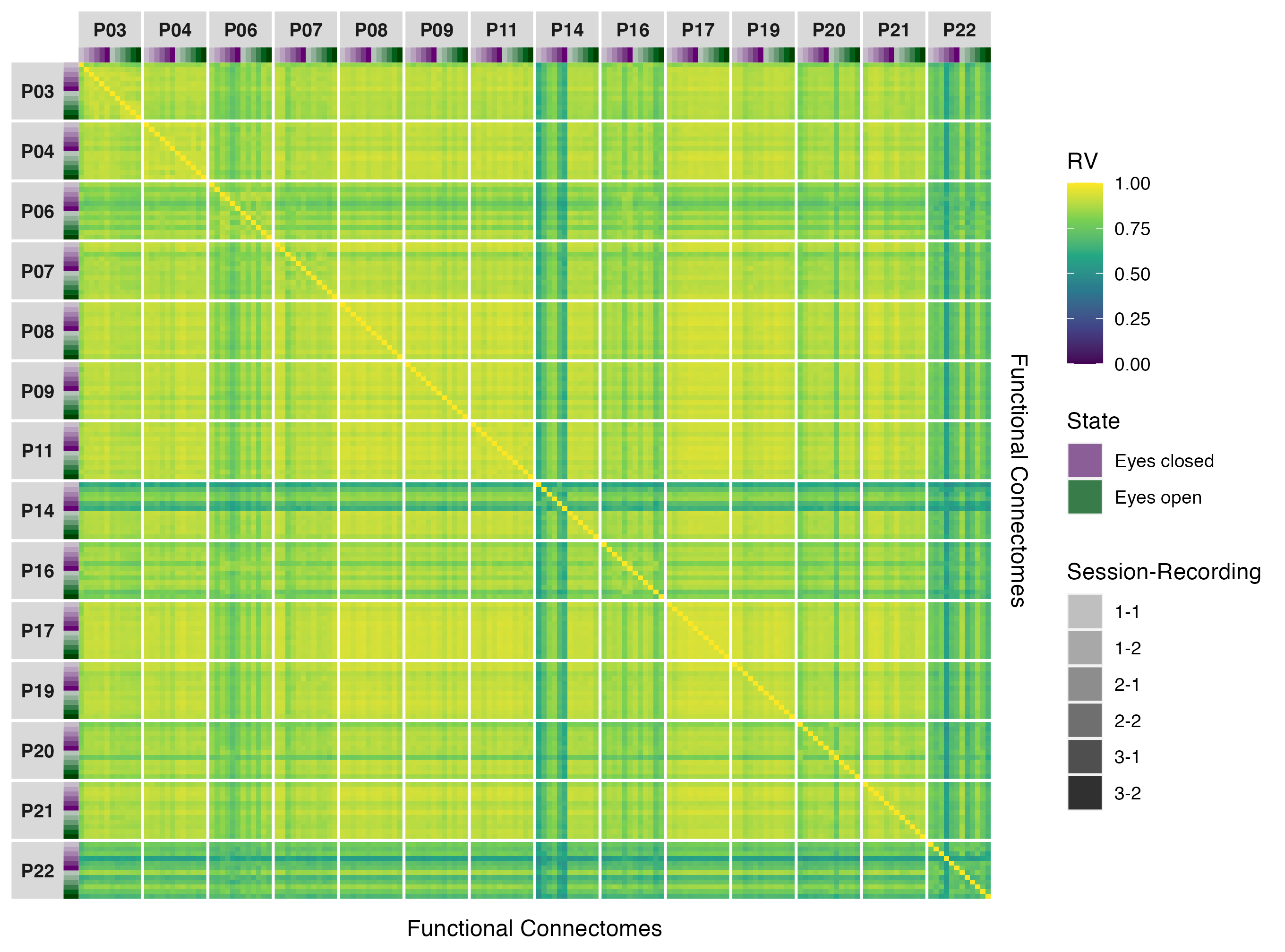


Figure 8: Similarity matrix showing functional connectome similarities within and between participants for phase coupling (Hilbert transform) functional connectomes in the theta band.

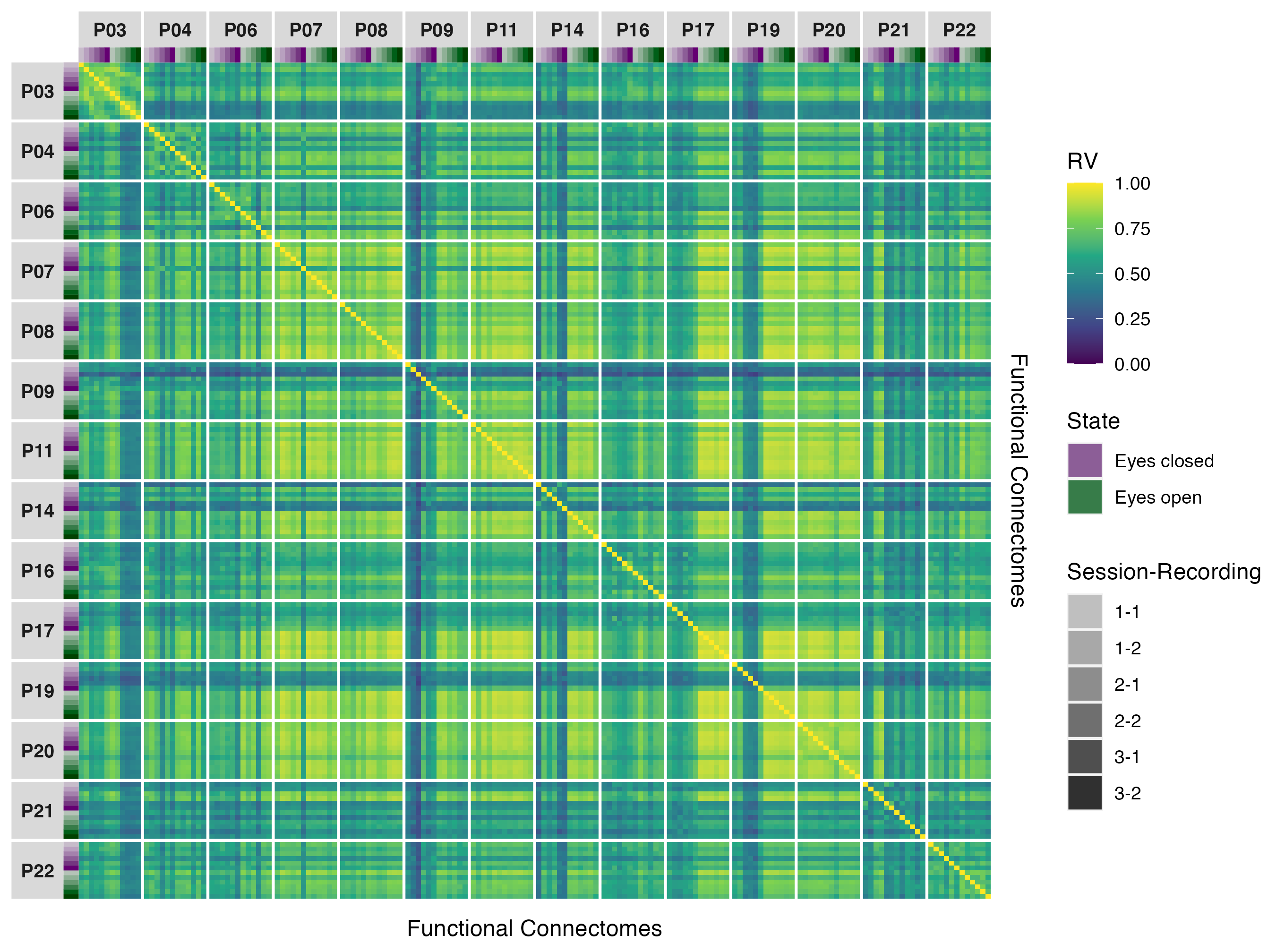


Figure 9: Similarity matrix showing functional connectome similarities within and between participants for phase coupling (Hilbert transform) functional connectomes in the alpha band.

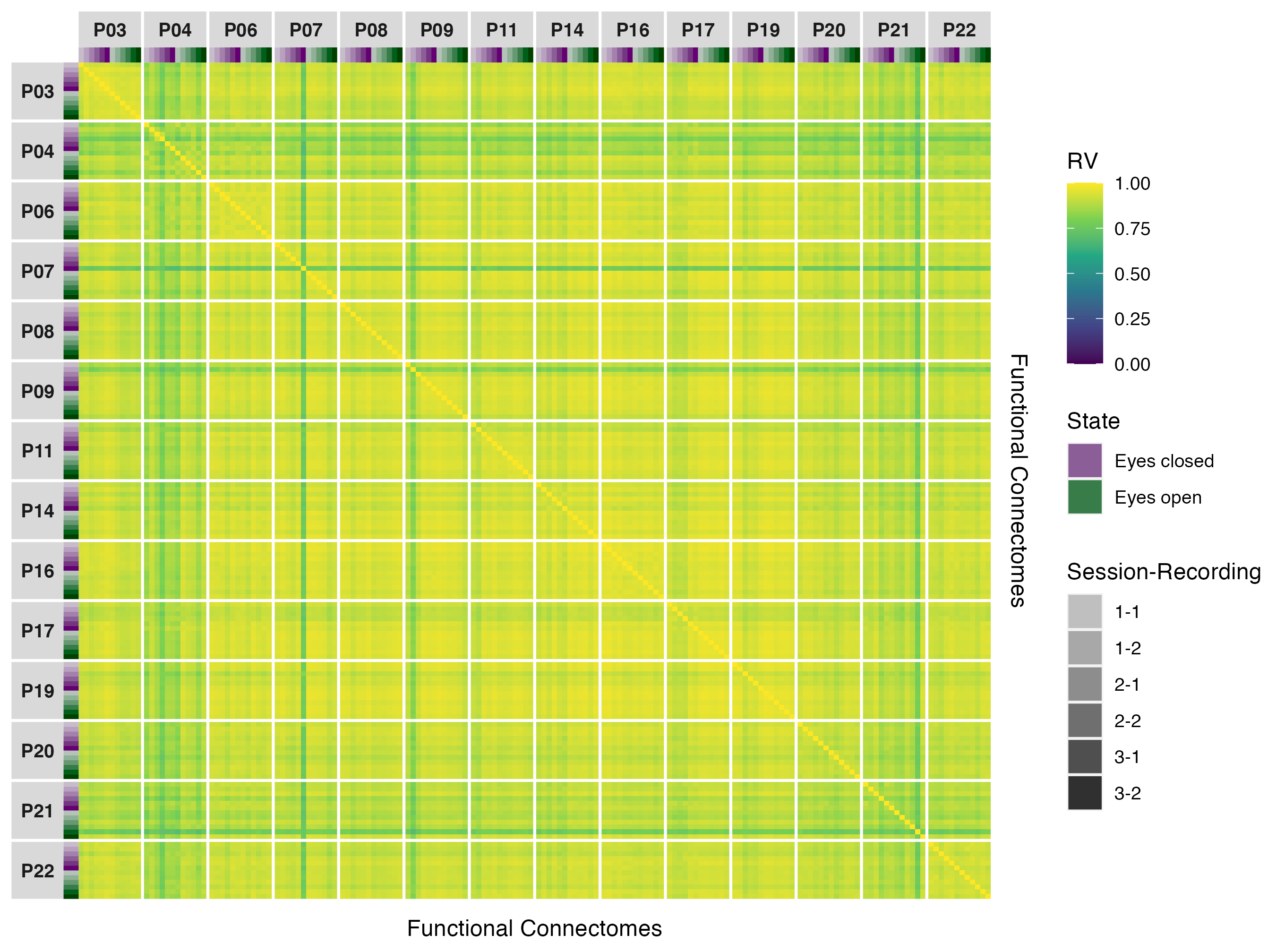


Figure 10: Similarity matrix showing functional connectome similarities within and between participants for phase coupling (Hilbert transform) functional connectomes in the beta band.

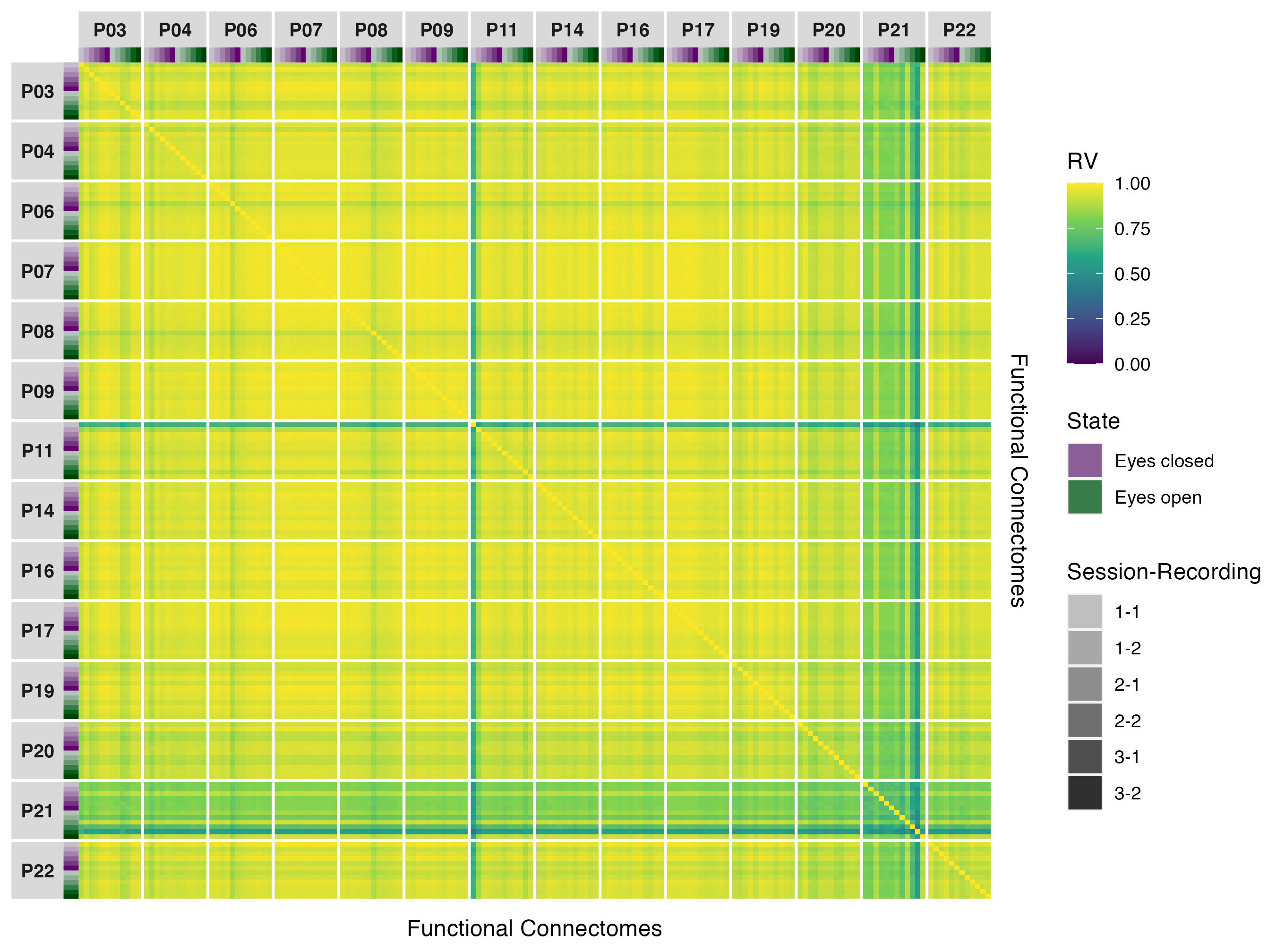


Figure 11: Similarity matrix showing functional connectome similarities within and between participants for phase coupling (Hilbert transform) functional connectomes in the gamma band.

## Jet palettes

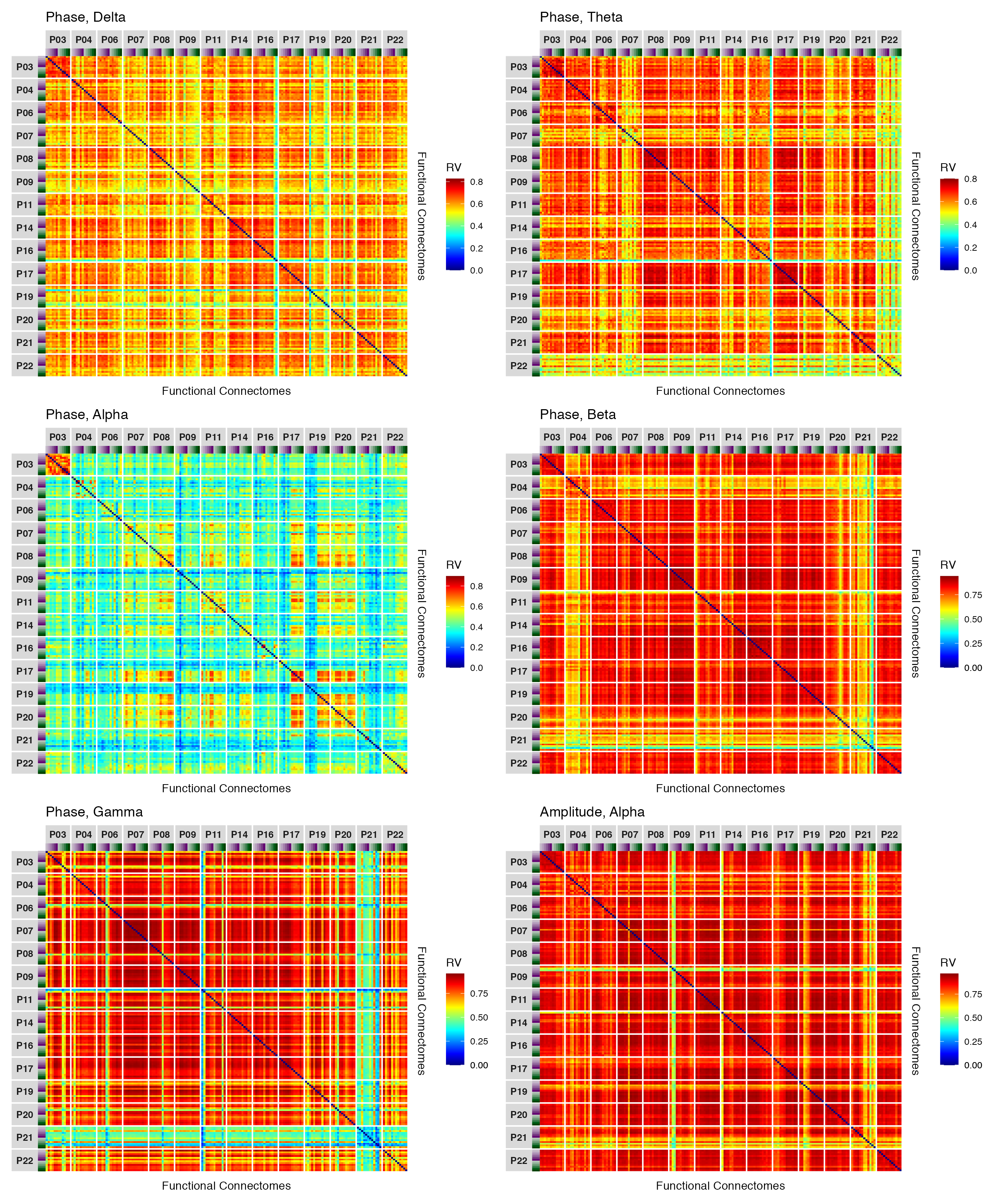


Figure 12: Similarity matrices showing functional connectome similarities within and between participants for phase coupling and amplitude coupling functional connectomes across frequency bands using the Jet colour scale (<https://www.mathworks.com/help/matlab/ref/jet.html>). Note that this colour scale is not perceptually uniform, making differences between different values appear greater than they are, and which have been further exaggerated by scaling colours to the limits of the data rather than the 0-1 range of the RV coefficient. We show our results here using this approach solely to facilitate visual comparisons between our results and those of other studies that have shown their results in this way (e.g., Gordon et al. (2017); Gratton et al. (2018)).

# References

Gordon, Evan M., Timothy O. Laumann, Adrian W. Gilmore, Dillan J. Newbold, Deanna J. Greene, Jeffrey J. Berg, Mario Ortega, et al. 2017. “Precision Functional Mapping of Individual Human Brains.” *Neuron* 95 (4): 791–807.e7. <https://doi.org/10.1016/j.neuron.2017.07.011>.

Gratton, Caterina, Timothy O. Laumann, Ashley N. Nielsen, Deanna J. Greene, Evan M. Gordon, Adrian W. Gilmore, Steven M. Nelson, et al. 2018. “Functional Brain Networks Are Dominated by Stable Group and Individual Factors, Not Cognitive or Daily Variation.” *Neuron* 98 (2): 439–452.e5. <https://doi.org/10.1016/j.neuron.2018.03.035>.