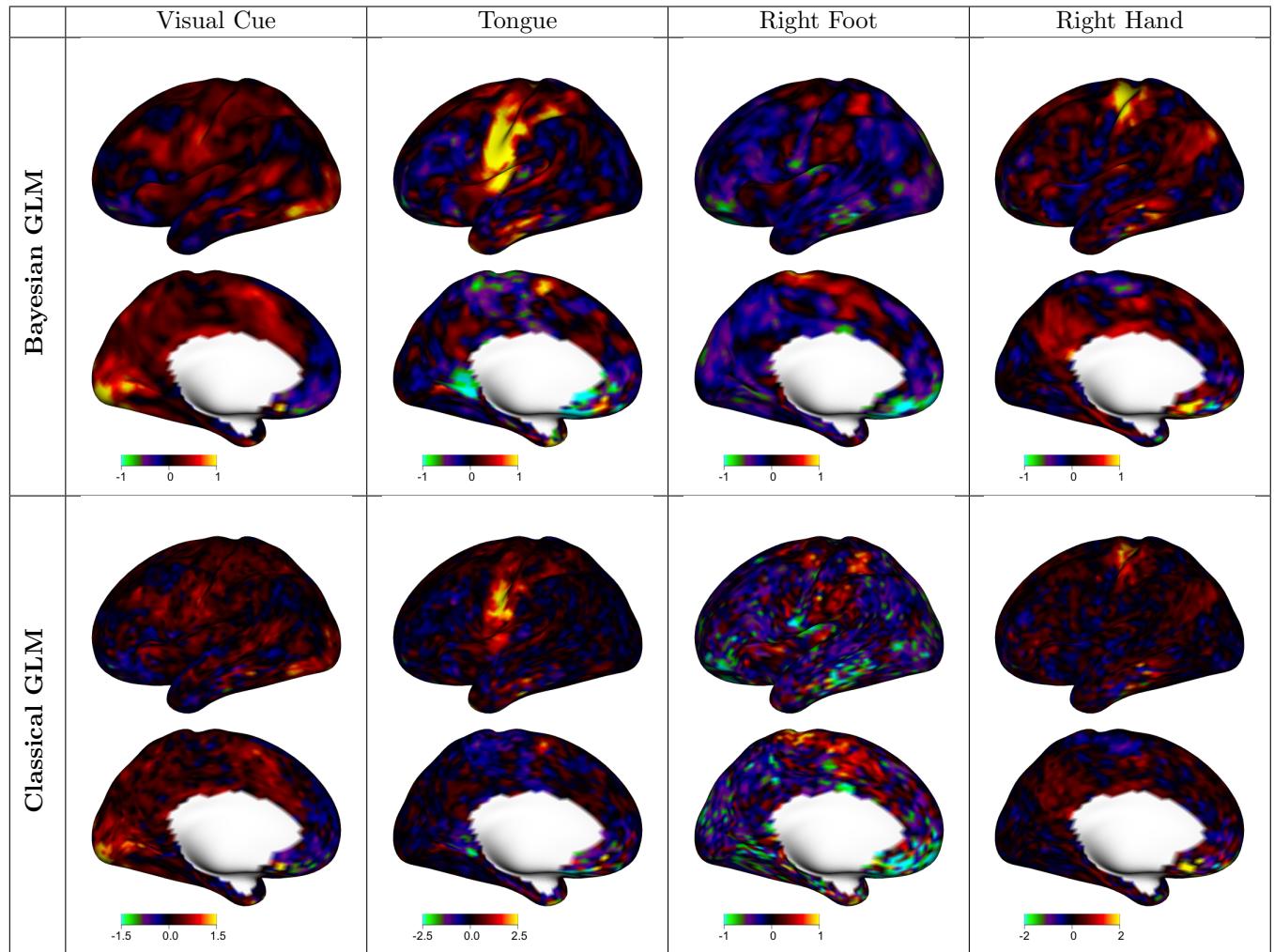
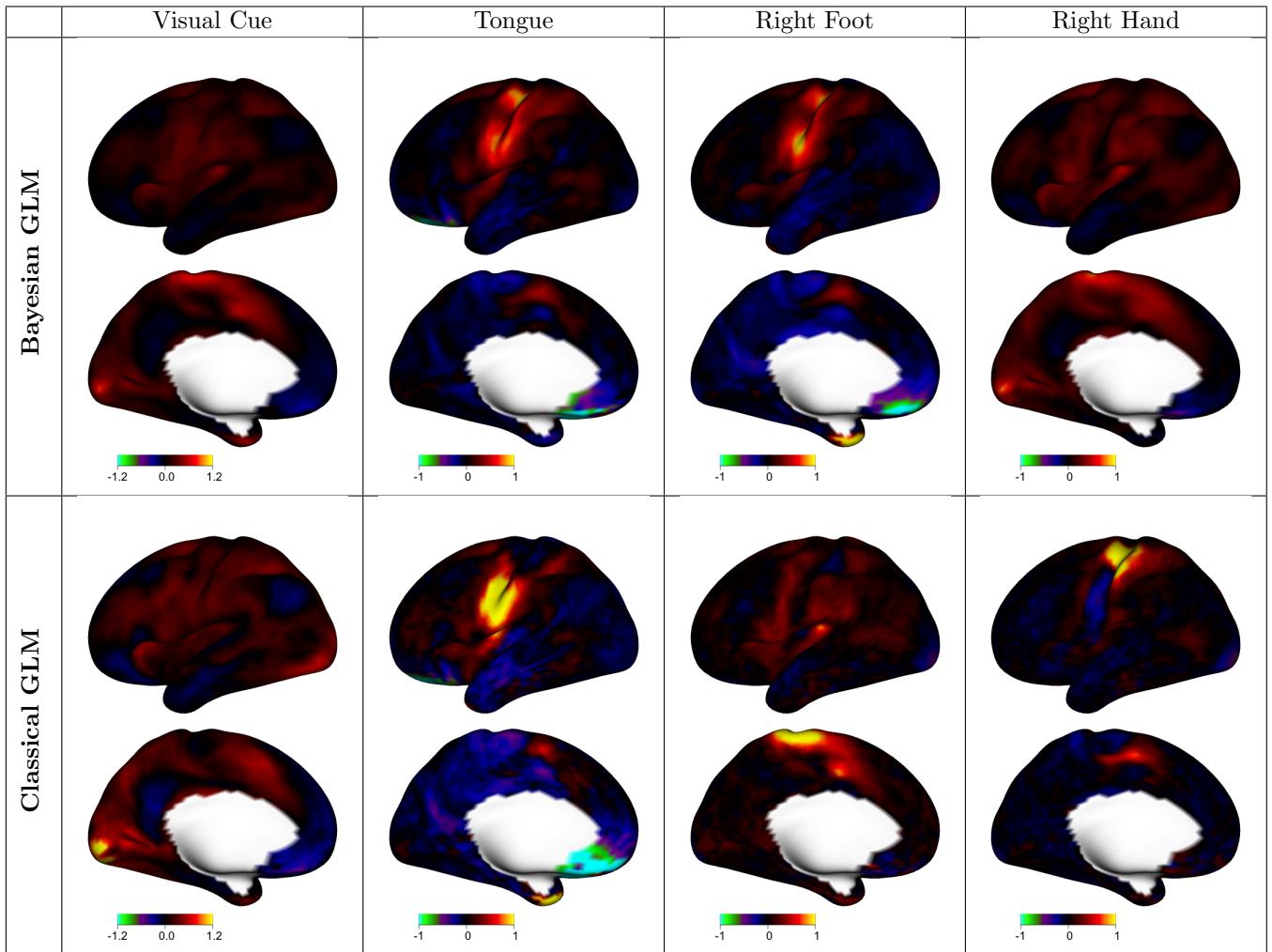


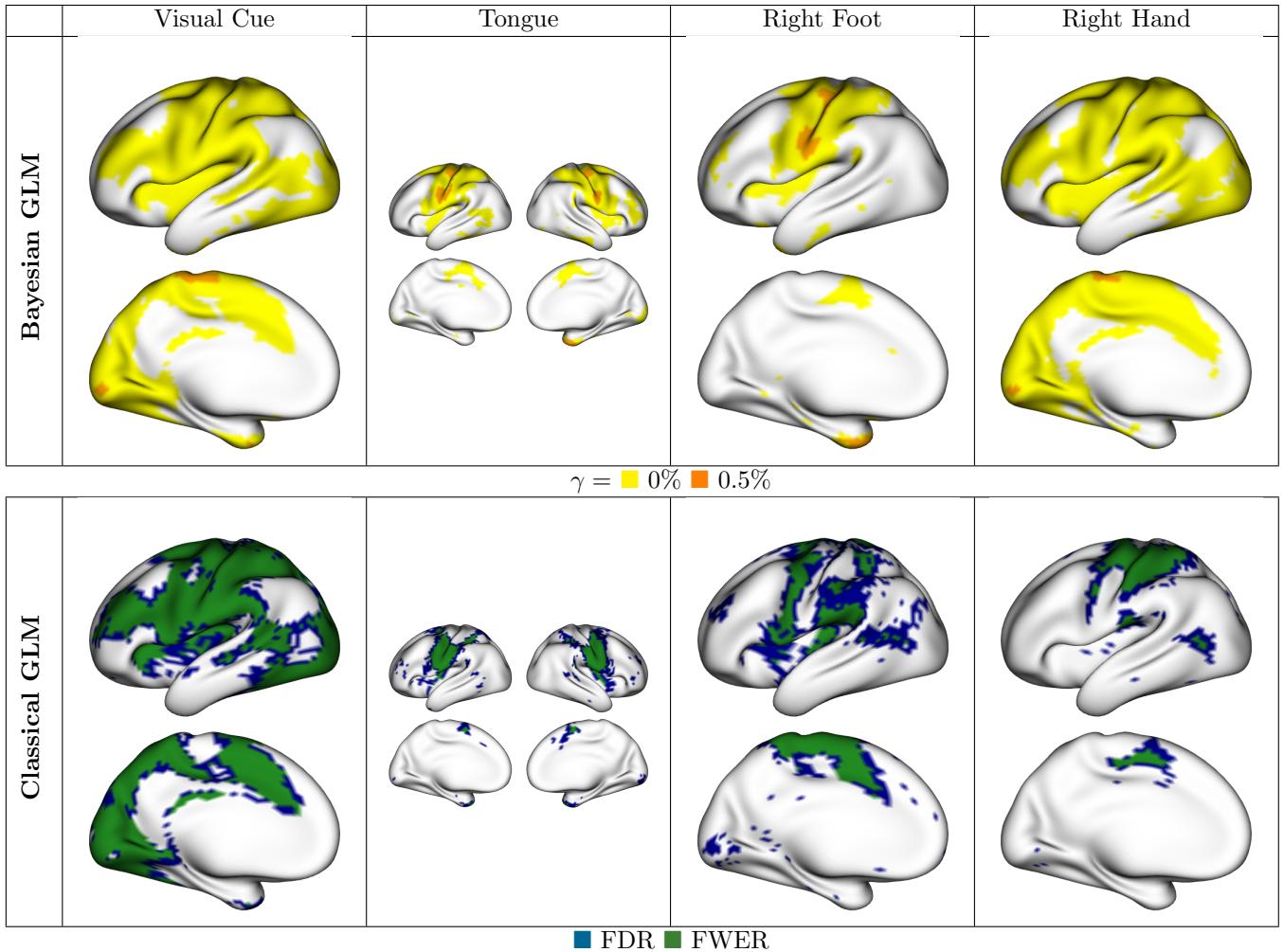
## 1 Single Subject Estimates



## 2 Group Estimates



### 3 Activation



## 4 Intraclass Correlation

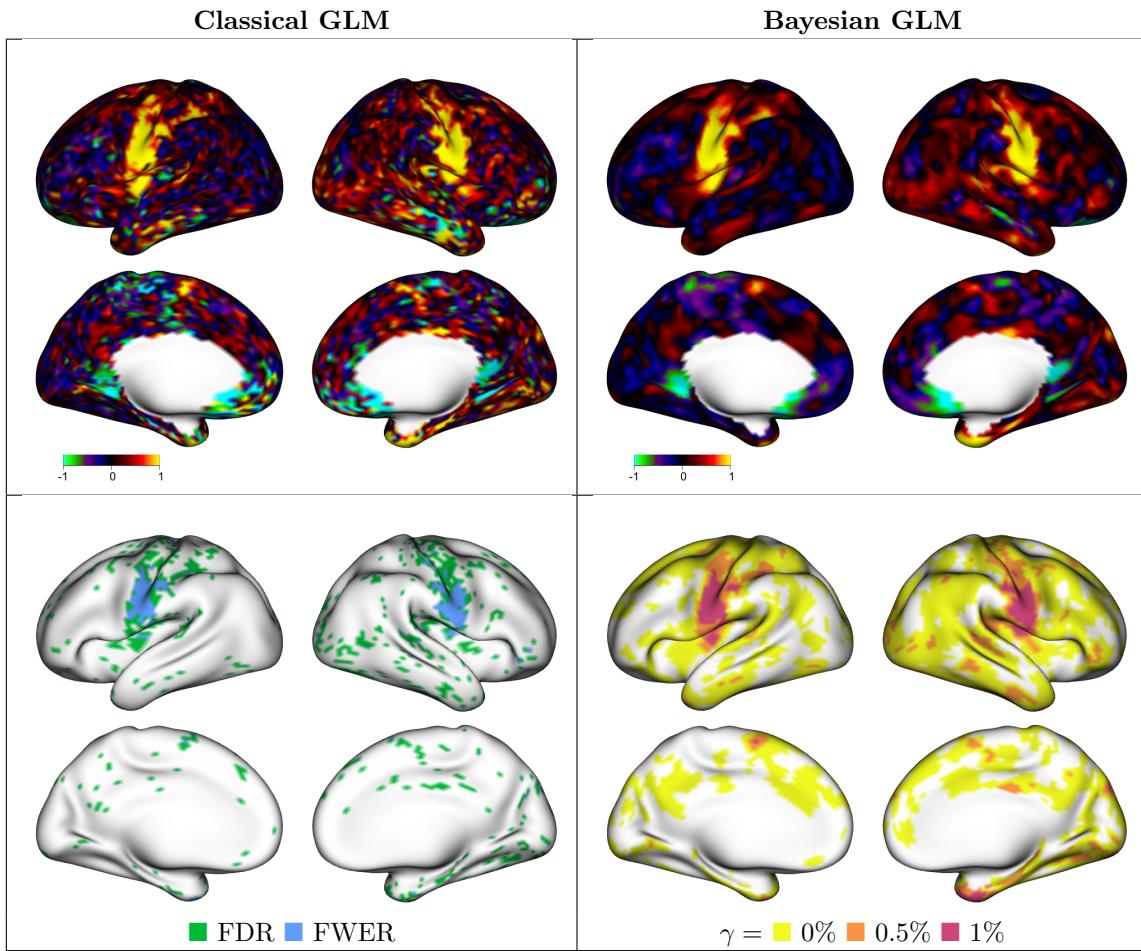


Figure (1) Single-subject estimates of activation amplitude and areas of activation for both brain hemispheres for the tongue task. For the classical GLM, areas of activation are found using the FDR and FWER multiple testing corrections. For the Bayesian GLM, the areas of activation are based on three different activation thresholds  $\gamma$  (0%, 0.5%, and 1% local signal change). All activations were determined using a one-sided significance level of 0.01.

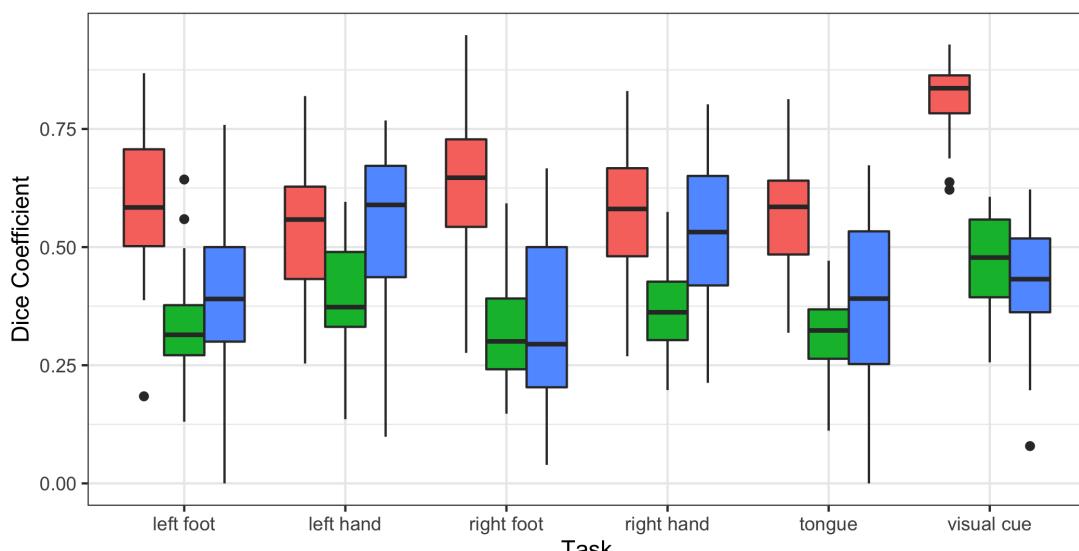
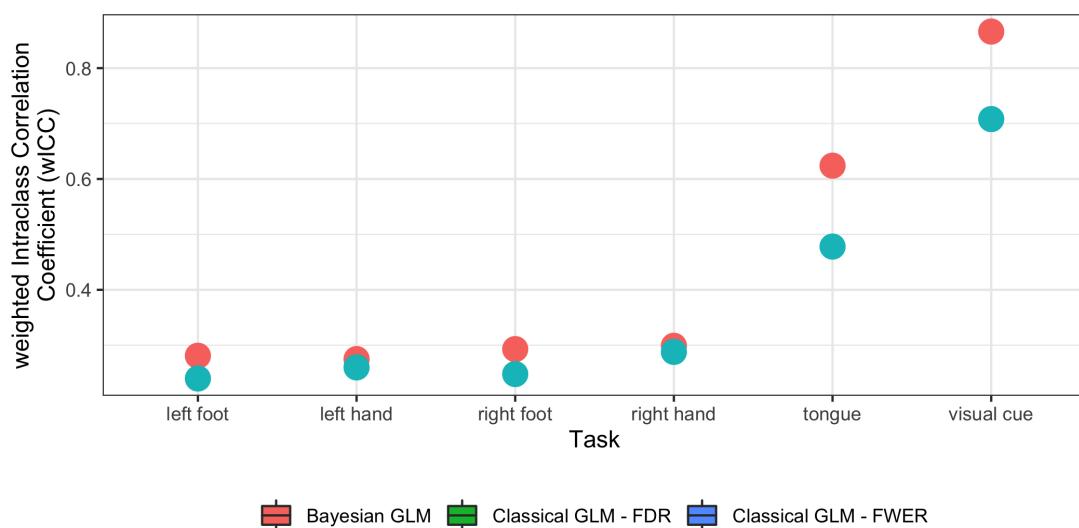
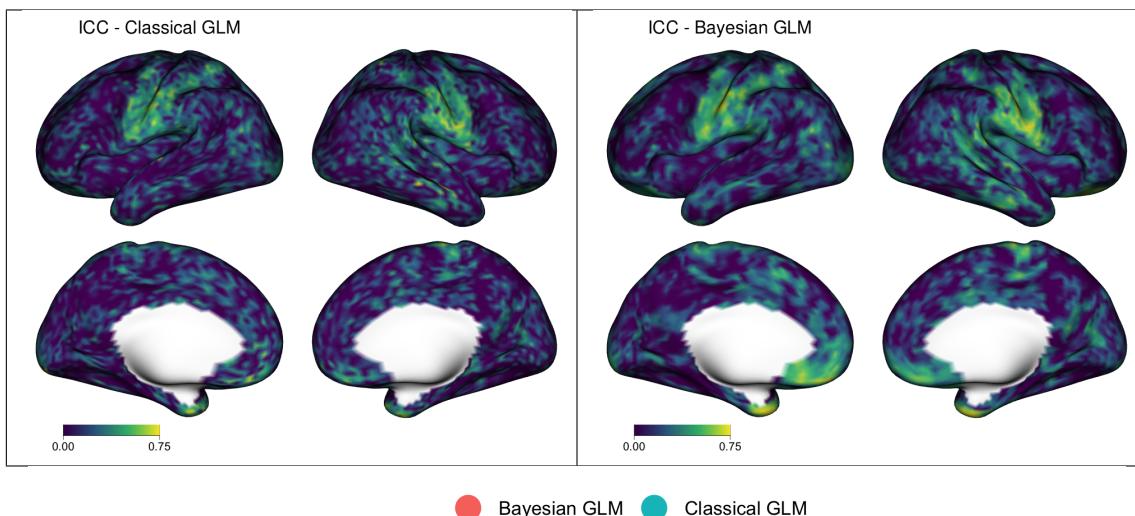


Figure (2) Cross-subject average intraclass correlation coefficient (ICC) values for the similarity of average amplitude estimates across the two visits in the study data for the tongue motor task for the Classical GLM and the Bayesian GLM (top panels). The weighted ICC summary statistic with weights based on the group classical GLM activation (middle panel) and boxplots for the Dice coefficient for each subject (bottom panel) across the two models is shown for all six tasks.