



Fig. S1: Graphical representation of the model. Green nodes represent hyperparameters, grey nodes denote latent variables and the blue node marks BOLD data as the observed variable. A partition λ is drawn from dd-CRP with hyperparameter \mathbf{A} . For each cluster k in this partition and timepoint t , we draw a mean μ_{kt} and precision τ_{kt} from a normal-gamma distribution with parameters μ_0 , κ_0 , a_0 and b_0 . Finally, for each voxel that is a member of cluster k and each timepoint, we draw a datapoint from a normal distribution with parameters μ_{kt} and τ_{kt} .