1 Supplementary Figures

0.95 tGPLVM - random initialization tGPLVM - PCA initizaliation 0.94 0.90 0.92 0.90 Adjusted Rand Score 0.80 0.75 W 0.88 0.84 0.82 0.70 0.80 GPLVM - random GPLVM - PCA init 2 3 4 5 6 Latent Dimensio 9 4 5 6 Latent Dimensions

1.1 Effect of Initialization on Clustering

Figure 1: Black Box Variational Inference can be sensitive to initialization. As evaluated by NMI and Adjusted Rand Score we find that changing from a PCA initialization to random noise initialization does not greatly change clustering performance.