

A APPENDIX

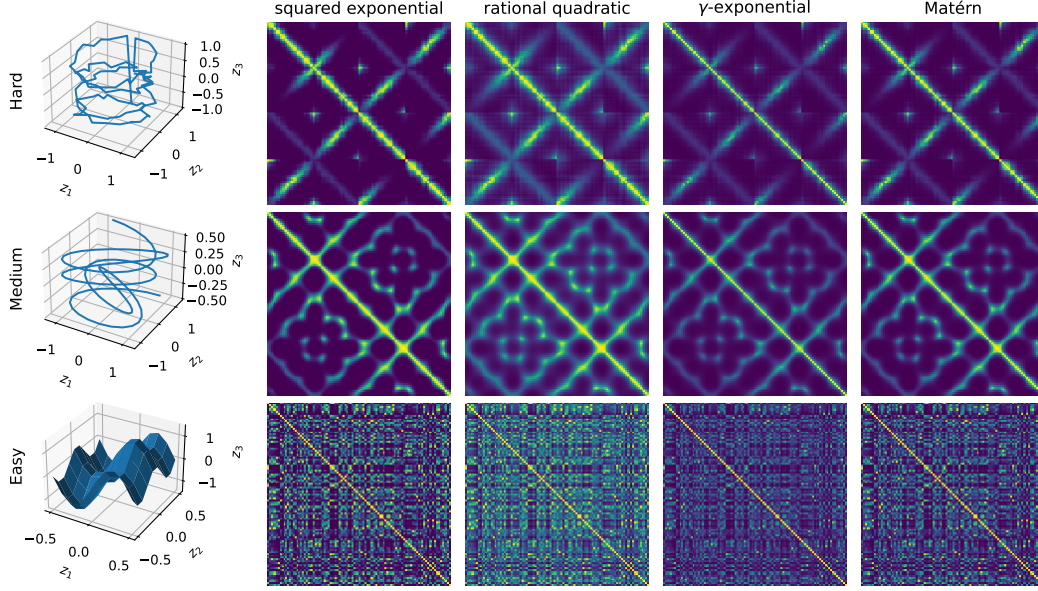


Figure 5: Left: ground truth Z of the latent. Right: kernel covariance matrix K created by the corresponding latent for the four different kernels, with marginal variance $\sigma = 1$ and length-scale $l = 0.5$; $\alpha = 1$ in rational quadratic kernel, $\gamma = 1$ in γ -exponential kernel, and $\nu = 1$ in Matérn kernel. The difficulty levels of the three datasets are from hard to easy, from top to bottom. For the easy dataset (bottom), points are selected from the grids on the surface and randomly permuted.

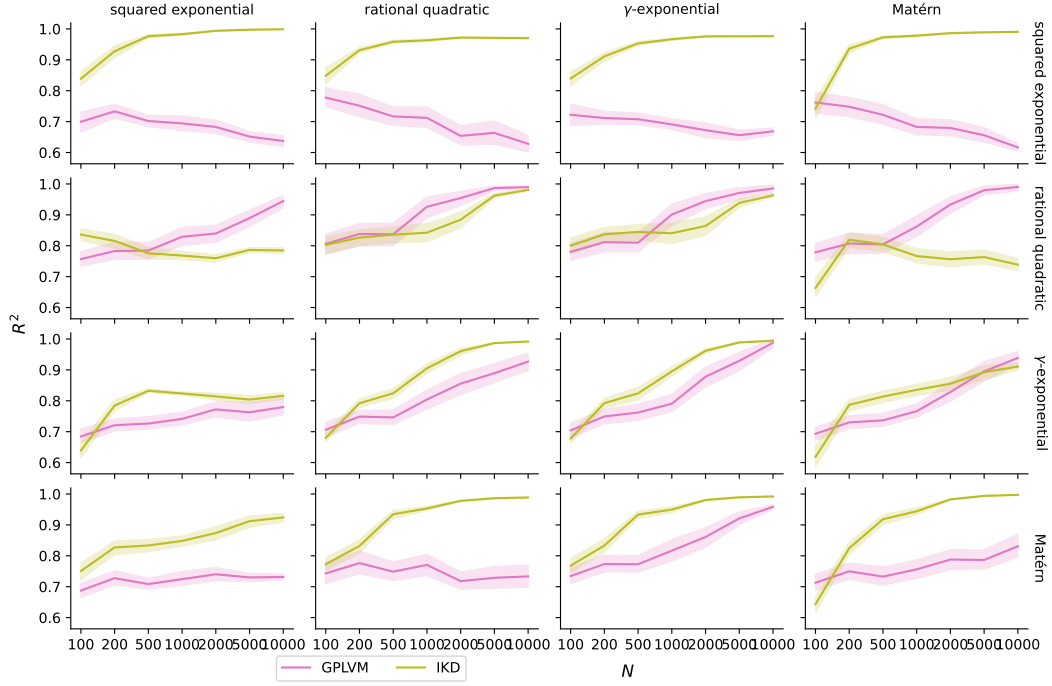


Figure 6: R^2 values with respect to observation dimensionality N of the three methods for generating kernels (each row) and inference kernels (each column). The true latent is from the medium dataset.

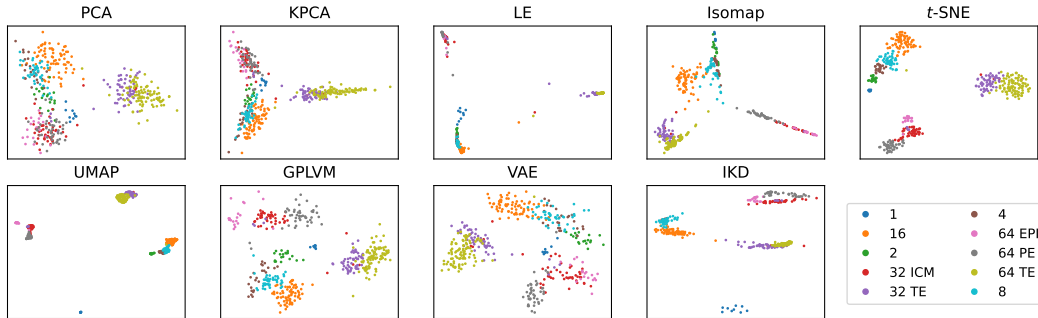


Figure 7: Visualization of the dimensionality reduction results of different methods on the PCR dataset.

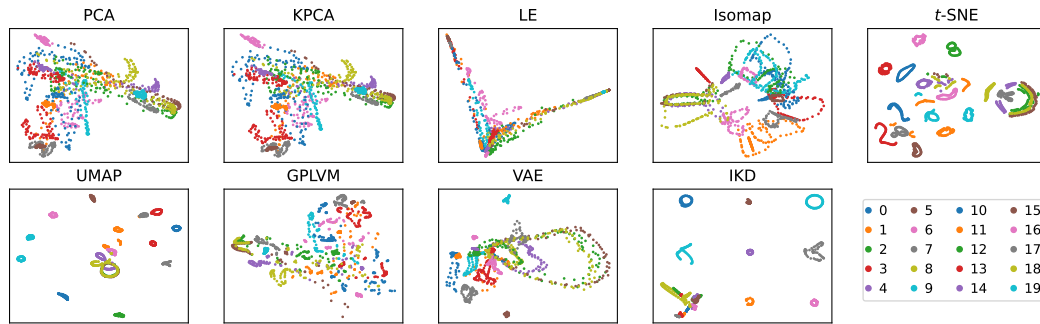


Figure 8: Visualization of the dimensionality reduction results of different methods on the COIL-20 dataset.

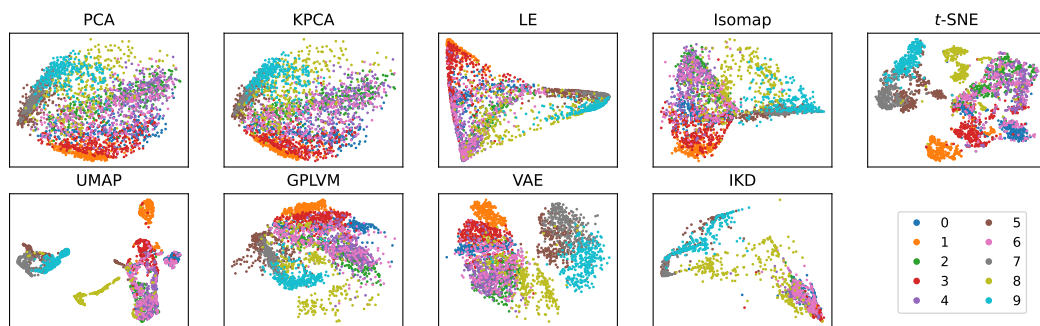


Figure 9: Visualization of the dimensionality reduction results of different methods on the F-MNIST dataset.