$$f_j \sim \mathcal{GP}(0, \kappa_j(\cdot, \cdot)) \rightarrow p(\mathbf{f}|\boldsymbol{\theta}_0) = \prod_{j=1}^{Q} p(\mathbf{f}_{\bullet j}|\boldsymbol{\theta}_0) = \prod_{j=1}^{Q} \mathcal{N}(\mathbf{f}_{\bullet j}; \mathbf{0}, \mathbf{K}_j)$$

Covariance function of j^{th} GP

All *NxQ* latent function values

Covariance Hyper-parameters

All *N* latent values for function *j*

Covariance matrix induced by κ_j