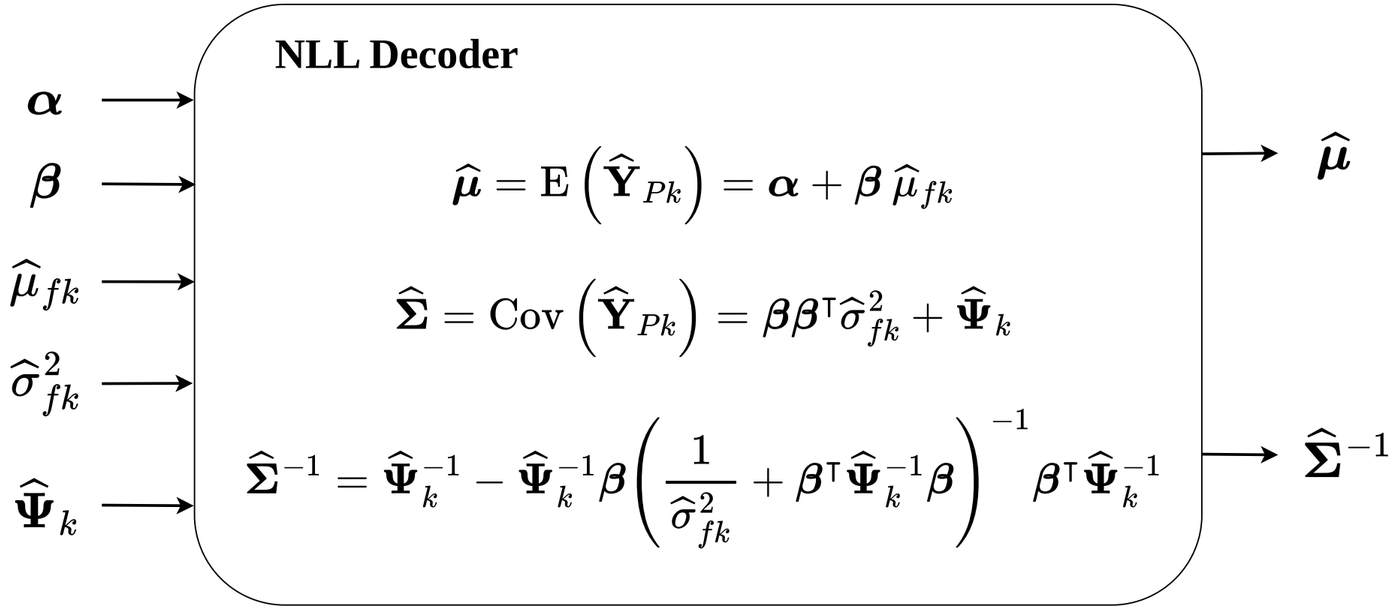
NLL Decoder
$\boldsymbol{\alpha}$
$\boldsymbol{\beta}$
$\widehat{\mu}_{fk}$
$\widehat{\sigma}^2_{fk}$
$\widehat{\boldsymbol{\Psi}}_k$
$\widehat{\boldsymbol{\mu}} = \mathrm{E}\left(\widehat{\mathbf{Y}}_{Pk}\right) = \boldsymbol{\alpha} + \boldsymbol{\beta}\,\widehat{\mu}_{fk}$
$\widehat{\boldsymbol{\Sigma}} = \mathrm{Cov}\left(\widehat{\mathbf{Y}}_{Pk}\right) = \boldsymbol{\beta}\boldsymbol{\beta}^\intercal\widehat{\sigma}^2_{fk} + \widehat{\boldsymbol{\Psi}}_k$
$\widehat{\boldsymbol{\Sigma}}^{-1} = \widehat{\boldsymbol{\Psi}}_k^{-1} - \widehat{\boldsymbol{\Psi}}_k^{-1}\boldsymbol{\beta}\left(\frac{1}{\widehat{\sigma}^2_{fk}} + \boldsymbol{\beta}^\intercal\widehat{\boldsymbol{\Psi}}_k^{-1}\boldsymbol{\beta}\right)^{-1}\boldsymbol{\beta}^\intercal\widehat{\boldsymbol{\Psi}}_k^{-1}$
$\widehat{\boldsymbol{\mu}}$
$\widehat{\boldsymbol{\Sigma}}^{-1}$