$$f_{\mathrm{H}}(\mathbf{x}) = w\,\rho(\mathbf{x})\,f_{\mathrm{L}}(\mathbf{x}) + (1-w)\left[a + bf_{\mathrm{L}}(\mathbf{x}) + \delta(\mathbf{x})\right] + c\,\delta(\mathbf{x})$$

$$\rho(\mathbf{x}) = \sum_{i=1}^{p}\beta_i\zeta_i(\mathbf{x}) \wedge$$
$$\delta(\mathbf{x}) = \sum_{j=1}^{q}\gamma_j\xi_j(\mathbf{x})$$

$\longleftrightarrow$

$$\rho(\mathbf{x}) \sim \mathcal{GP}\left(m_\rho(\cdot), \kappa_\rho(\cdot,\cdot|\boldsymbol{\phi}_\rho)\right) \vee$$
$$\delta(\mathbf{x}) \sim \mathcal{GP}\left(m_\delta(\cdot), \kappa_\delta(\cdot,\cdot|\boldsymbol{\phi}_\delta)\right)$$

β_i, γ_j = coefficients
$\zeta_i(\cdot), \xi_j(\cdot)$ = basis functions

$m_\rho(\cdot), m_\delta(\cdot)$ = mean functions
$\kappa_\rho(\cdot,\cdot|\boldsymbol{\phi}_\rho), \kappa_\delta(\cdot,\cdot|\boldsymbol{\phi}_\delta)$ = covariance functions

Deterministic

Probabilistic