



$$Y(s) \sim \mathcal{N}(\mu_Y(s), \sigma_Y(s)) \quad \tilde{\sigma}_Y(s) = \log(\sigma_Y(s)) \quad \mu_Z(s) = \mu_Y(s) + \mu_B(s)$$

$$Z(s) \sim \mathcal{N}(\mu_Z(s), \sigma_Z(s)) \quad \tilde{\sigma}_Z(s) = \log(\sigma_Z(s)) \quad \tilde{\sigma}_Z(s) = \tilde{\sigma}_Y(s) + \tilde{\sigma}_B(s)$$

$$\mu_Y(s) \sim \mathcal{GP}(m_{\mu_Y}, k_{RBF}(s, s' | v_{\mu_Y}, l_{\mu_Y})) \quad \tilde{\sigma}_Y(s) \sim \mathcal{GP}(m_{\tilde{\sigma}_Y}, k_{RBF}(s, s' | v_{\tilde{\sigma}_Y}, l_{\tilde{\sigma}_Y}))$$

$$\mu_B(s) \sim \mathcal{GP}(m_{\mu_B}, k_{RBF}(s, s' | v_{\mu_B}, l_{\mu_B})) \quad \tilde{\sigma}_B(s) \sim \mathcal{GP}(m_{\tilde{\sigma}_B}, k_{RBF}(s, s' | v_{\tilde{\sigma}_B}, l_{\tilde{\sigma}_B}))$$