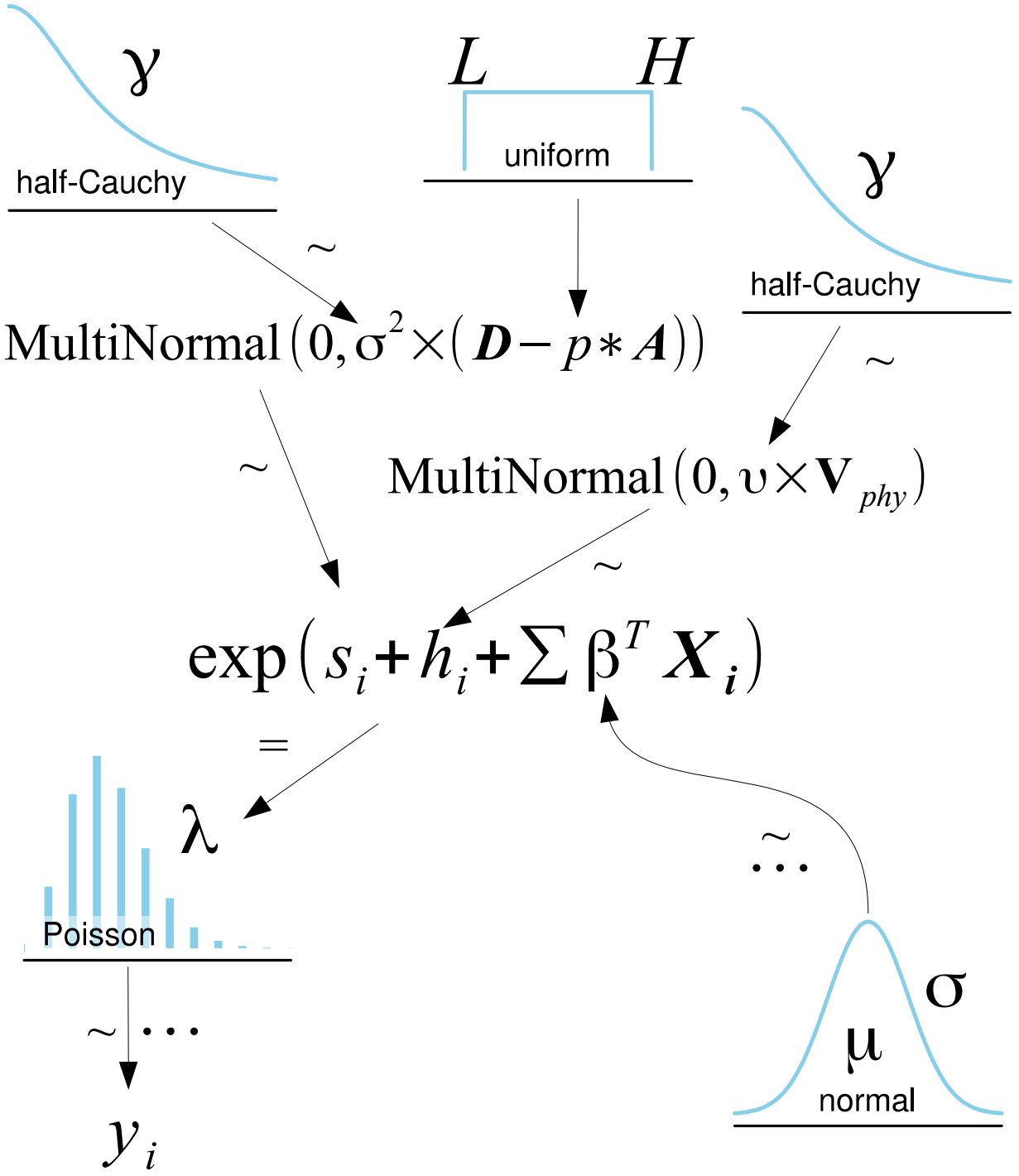

$$y_i \sim \text{Poisson}(\lambda)$$
$$s_i \sim \text{MultiNormal}(0, \Sigma_s)$$
$$\Sigma_s = \sigma^2 * (\boldsymbol{D} - p * \boldsymbol{A})$$
$$\sqrt{(\sigma^2)} \sim \text{half-Cauchy}(2.5)$$
$$p \sim \text{Uniform}(0, 1)$$
$$h_i \sim \text{MultiNormal}(0, \Sigma_p)$$
$$\Sigma_p = \upsilon \times \mathbf{V}_{phy}$$
$$\upsilon \sim \text{half-Cauchy}(2.5)$$
$$\beta \sim \text{Normal}(0, 10)$$