Bayesian hierarchical models for NHPP using `rstan`

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1 Model setting

$$
\begin{aligned}
CE_i &\sim \mathrm{PLP}(\beta, \theta_i) \\
\theta_i &= \mathrm{EXP}(\gamma_{0i} + \gamma_1 x_{i1} + \gamma_2 x_{i2} + \cdots + \gamma_k x_{ik}) \\
\gamma_{0i}, \gamma_{0i}, \cdots, \gamma_{0D} &\sim \text{i.i.d. } N(\mu_\gamma, \sigma_\gamma^2) \\
\gamma_1 &\sim N(0, 10) \\
\gamma_2 &\sim N(0, 10) \\
&\vdots \\
\gamma_k &\sim N(0, 10) \\
\beta &\sim \mathrm{Gamma}(1, 1) \\
\mu_\gamma &\sim N(0, 10) \\
\sigma_\gamma &\sim \mathrm{Gamma}(1, 1)
\end{aligned}
\tag{1}
$$