

Uncertainty type	Directive	Inputs	Multiplicative factor, $f(\nu)$	$p(y; \nu)$	Default values
Log-normal	lnN	kappa	κ^ν	$\mathcal{N}(y; \nu, 1)$	$\nu = y = 0$
Asymmetric log-normal	lnN	kappaDown, kappaUp	$(\kappa^{\text{Down}})^{-\nu}$ if $\nu < -0.5$, $(\kappa^{\text{Up}})^\nu$ if $\nu > 0.5$, $e^{\nu K(\kappa^{\text{Down}}, \kappa^{\text{Up}}, \nu)}$ otherwise.*	$\mathcal{N}(y; \nu, 1)$	$\nu = y = 0$
Log-uniform	lnU	kappa	κ^ν	$\mathcal{U}(y, 1/\kappa, \kappa)$	$\nu = y = \frac{1}{2}(\kappa + 1/\kappa)$
Gamma	gmN	N, alpha [†]	ν/N	$\mathcal{P}(y; \nu)$	$\nu = N + 1, y = N^\ddagger$

* $K(\kappa^{\text{Down}}, \kappa^{\text{Up}}, \nu) = \frac{1}{8} [4 \ln(\kappa^{\text{Up}}/\kappa^{\text{Down}}) + \ln(\kappa^{\text{Up}}\kappa^{\text{Down}}) (48\nu^5 - 40\nu^3 + 15\nu)]$ ensures that the multiplicative factor and its first and second derivatives are continuous for all values of ν , and reduces to a log-normal for $\kappa^{\text{Down}} = 1/\kappa^{\text{Up}}$.

[†]The rate value for the affected process must be equal to $N\alpha$.

[‡]The default value for the nuisance parameter is set to the mean of a gamma distribution with parameters $\kappa = N + 1, \lambda = 1$, as defined in Ref. [20].