Spline prior

Parametrization

The spline-prior has density

$$\pi(x) = \frac{\theta}{2} \exp\left(-\theta \exp\left(-\frac{x}{2}\right) - \frac{x}{2}\right) \tag{1}$$

for $x > 0$ where

$$\theta = -\frac{\ln(\alpha)}{u}$$

and (u, α) are the parameters to this prior. The interpretation of (u, α) is that

$$\text{Prob}(\sigma > u) = \alpha$$

where $\sigma = \exp(-x/2)$, as x is normally the log-precision.

Specification

The spline prior for the hyperparameters is specified inside the `f()` function as

```
f(<whatever>, hyper = list(<theta> = list(prior="spline", param=c(<u>,<alpha>))))
```

Example

Notes

This prior is experimental and for internal use only