

## iid-Exponential

### Parametrisation

This family is part of the “iid” family to emulate non-Gaussian iid components.

The Exponential distribution is

$$f(\mu) = s\lambda \exp(-s\lambda\mu), \quad \mu \geq 0$$

for the linear predictor  $\mu$ , and where

$\lambda$ : is the rate

$s$ : is a fixed scaling,  $s > 0$ .

### Link-function

Not relevant

### Hyperparameters

The rate is represented as

$$\theta = \log \lambda$$

and the prior is defined on  $\theta$ .

### Specification

- `family="iidexp"`
- Required arguments:  $y$  and  $s$  (keyword `scale`)

The scalings have default value 1. Note that the numerical values of  $y$  is not used, only if its NA or not.

### Hyperparameter spesification and default values

**hyper**

**theta**

```
name    log lambda
short.name  lambda
initial  0
fixed   FALSE
prior   loggamma
param   1 1
to.theta function(x) log(x)
from.theta function(x) exp(x)
```

**survival** FALSE

**discrete** FALSE

**link** default identity

**pdf** iidexp

## Example

`## add example later`

## Notes

None.