Linkmodel: logoffset

Parametrization

This model is an extention of the "log"-link, to include an additional scaled offset, so that

$$y_i \sim \text{Poisson}(\beta x_i + \exp(\eta_i))$$

where $\beta \geq 0$ is an optional hyperparameter (default fixed to be 1), x_i is a (required) non-negative covariate.

Hyperparameters

The parameter β represented as

$$\theta = \log \beta$$

and the prior is defined on θ .

Specification

Use model="logoffset" within control.link. The variant=0 in control.link gives the link function above, while variant=1 gives $\beta x_i - \exp(\eta_i)$ (for other likelihoods).

Hyperparameter spesification and default values

```
\operatorname{\mathbf{doc}} Log-link with an offset
```

hyper

```
theta
```

```
hyperid 49001
name beta
short.name b
prior normal
param 0 100
initial 0
fixed TRUE
to.theta function(x) log(x)
from.theta function(x) exp(x)
```

pdf logoffset

Example

Notes