

Number of Children - Partially Additive Model

August 21, 2024

For the following partially additive model the "children"-data from the package "catdata" are used.

```
> library(catdata)
> data(children)
```

Additive Models are fitted with the function "gam" from "mgcv".

```
> library(mgcv)
```

Here the model is fitted and the summary is printed.

```
> gamchild <- gam(child ~ s(age) + s(dur) + as.factor(nation) + as.factor(god) +
+   as.factor(univ), data=children, family=poisson(link=log))
> summary(gamchild)
```

Now the smooth effects can be plotted, the option "select" determines which effect is plotted.

```
> par(cex=1.5)
> plot(gamchild, select=1, ylab="", xlab="Age")

> par(cex=1.5)
> plot(gamchild, select=2, ylab="", xlab="Duration")
```