

# OrderedBeta

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## No Issue

```
library("DHARMA")
```

```
## This is DHARMA 0.4.6. For overview type '?DHARMA'. For recent changes, type news(package = 'DHARMA')
```

```
library("glmmTMB")
```

```
## Warning in checkMatrixPackageVersion(): Package version inconsistency detected.
```

```
## TMB was built with Matrix version 1.5.4
```

```
## Current Matrix version is 1.5.4.1
```

```
## Please re-install 'TMB' from source using install.packages('TMB', type = 'source') or ask CRAN for a
```

```
set.seed(1)
```

```
## No issues
```

```
y = runif(n = 1000, min = 0, max = 1)
```

```
x1 = rnorm(1000)
```

```
x2 = rnorm(1000)
```

```
data = as.data.frame(cbind(y,x1,x2))
```

```
model = glmmTMB(y ~ x1 + x2, data = data, family = ordbeta())
```

```
summary(model)
```

```
## Family: ordbeta ( logit )
```

```
## Formula: y ~ x1 + x2
```

```
## Data: data
```

```
##
```

```
## AIC BIC logLik deviance df.resid
```

```
## 11.6 41.1 0.2 -0.4 994
```

```
##
```

```
##
```

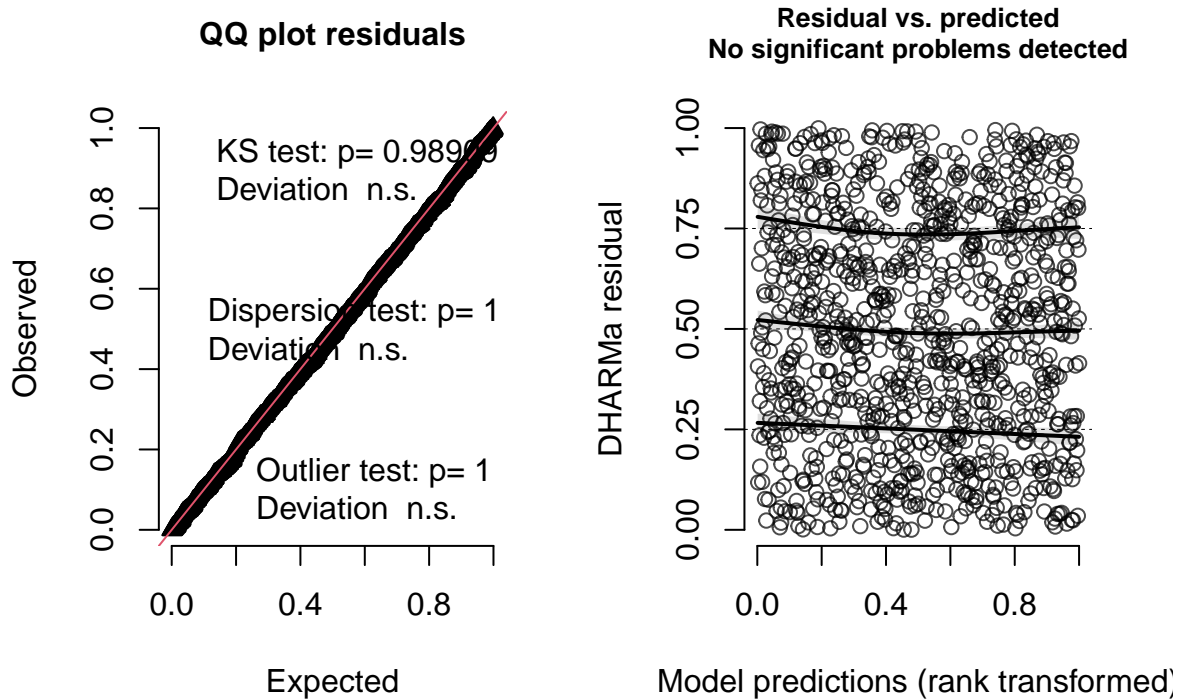
```
## Dispersion parameter for ordbeta family (): 2
```

```
##
```

```
## Conditional model:
##           Estimate Std. Error z value Pr(>|z|)
## (Intercept) 0.015395  0.034866  0.442  0.659
## x1          0.011486  0.033751  0.340  0.734
## x2          0.007379  0.033111  0.223  0.824
```

```
plot(simulateResiduals(model))
```

## DHARMA residual



## Structural Issue

```
## Structural Issues

y = runif(n = 1000, min = 0, max = 1)

y[y > 0.8] = 1

y[y < 0.6] = 0

x1 = rnorm(1000)
x2 = rnorm(1000)

data = as.data.frame(cbind(y,x1,x2))
```

```

model = glmmTMB(y ~ x1 + x2, data = data, family = ordbeta())

summary(model)

```

```

## Family: ordbeta ( logit )
## Formula:          y ~ x1 + x2
## Data: data
##
##      AIC      BIC   logLik deviance df.resid
## 1392.9 1422.3  -690.4  1380.9    994
##
##
## Dispersion parameter for ordbeta family (): 56.3
##
## Conditional model:
##           Estimate Std. Error z value Pr(>|z|)
## (Intercept) 0.862880  0.021611  39.93  <2e-16 ***
## x1          -0.017767  0.021201  -0.84   0.402
## x2          -0.007933  0.021368  -0.37   0.710
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

plot(simulateResiduals(model))

```

### DHARMA residual

