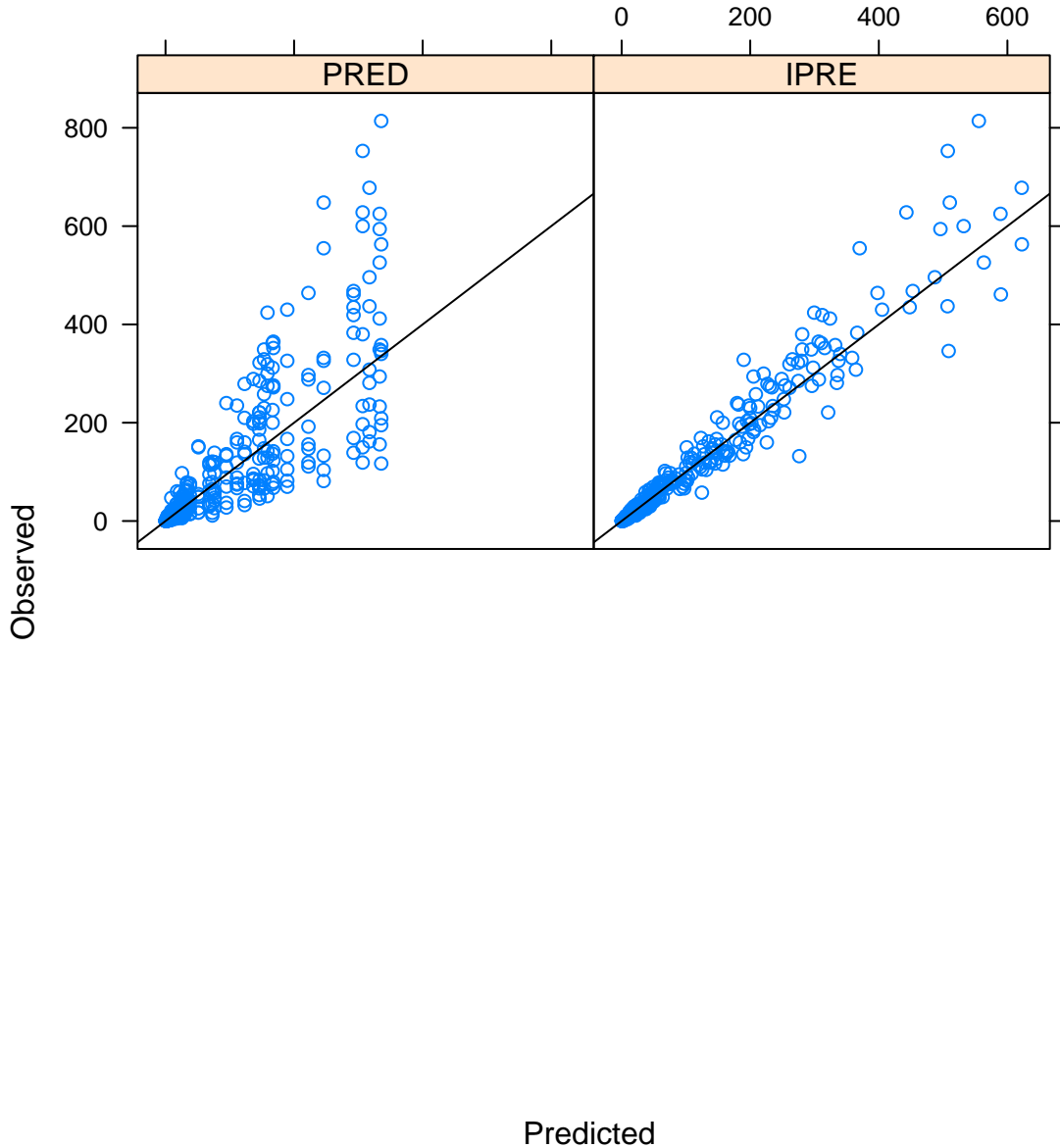


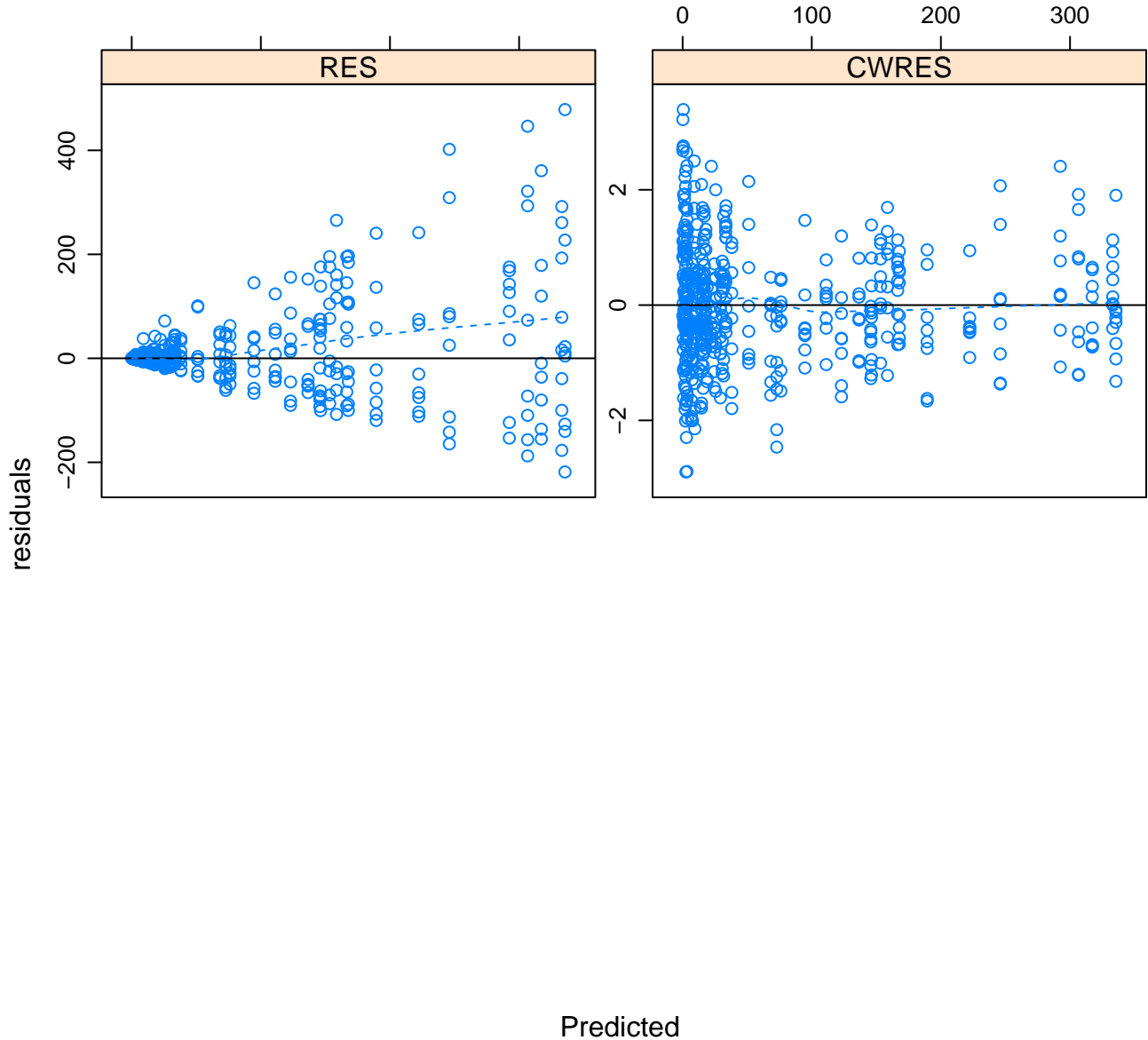
# Model 1003

## Observed vs. Predicted for all data



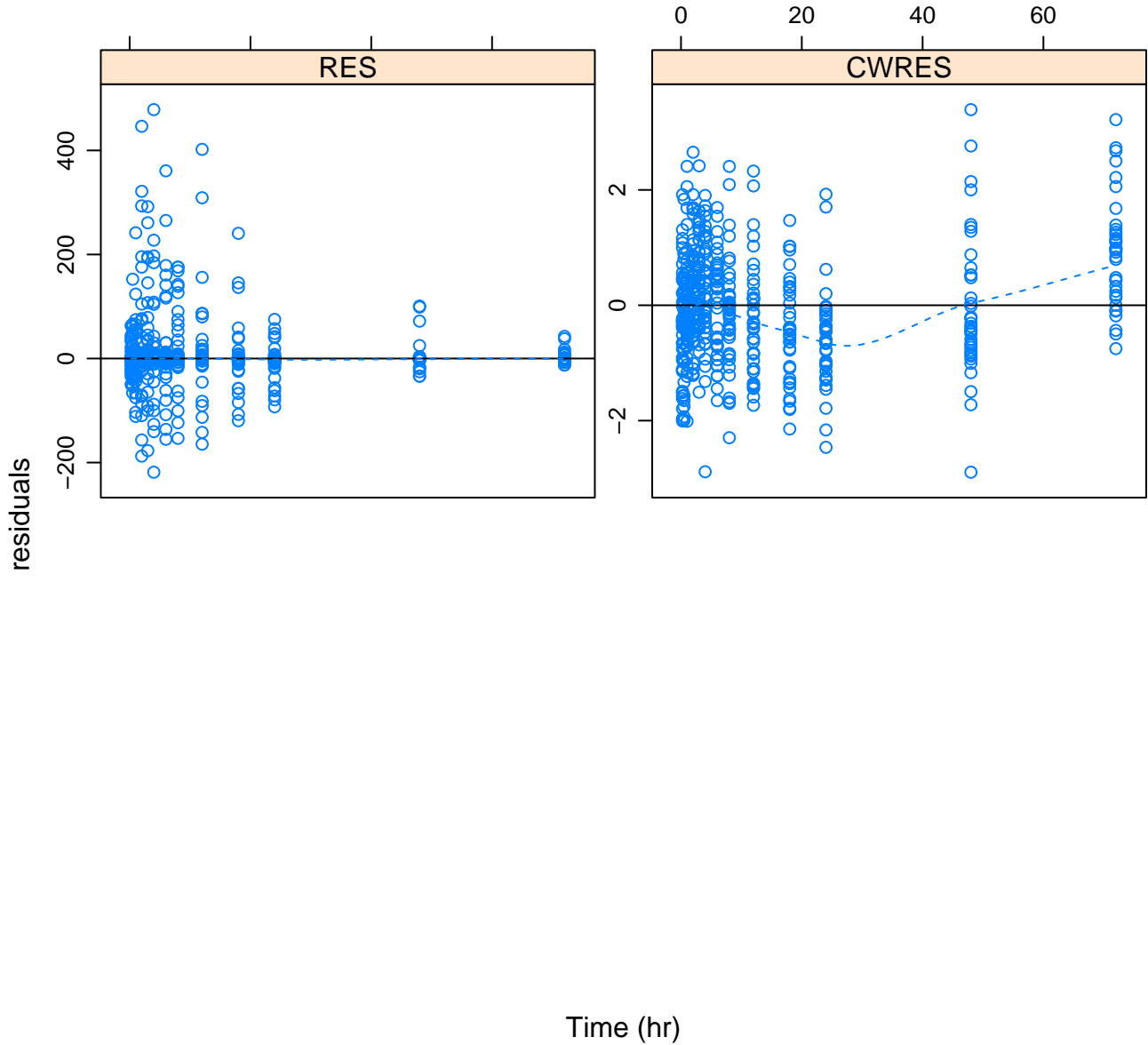
# Model 1003

## Residuals vs. Predicted for all data



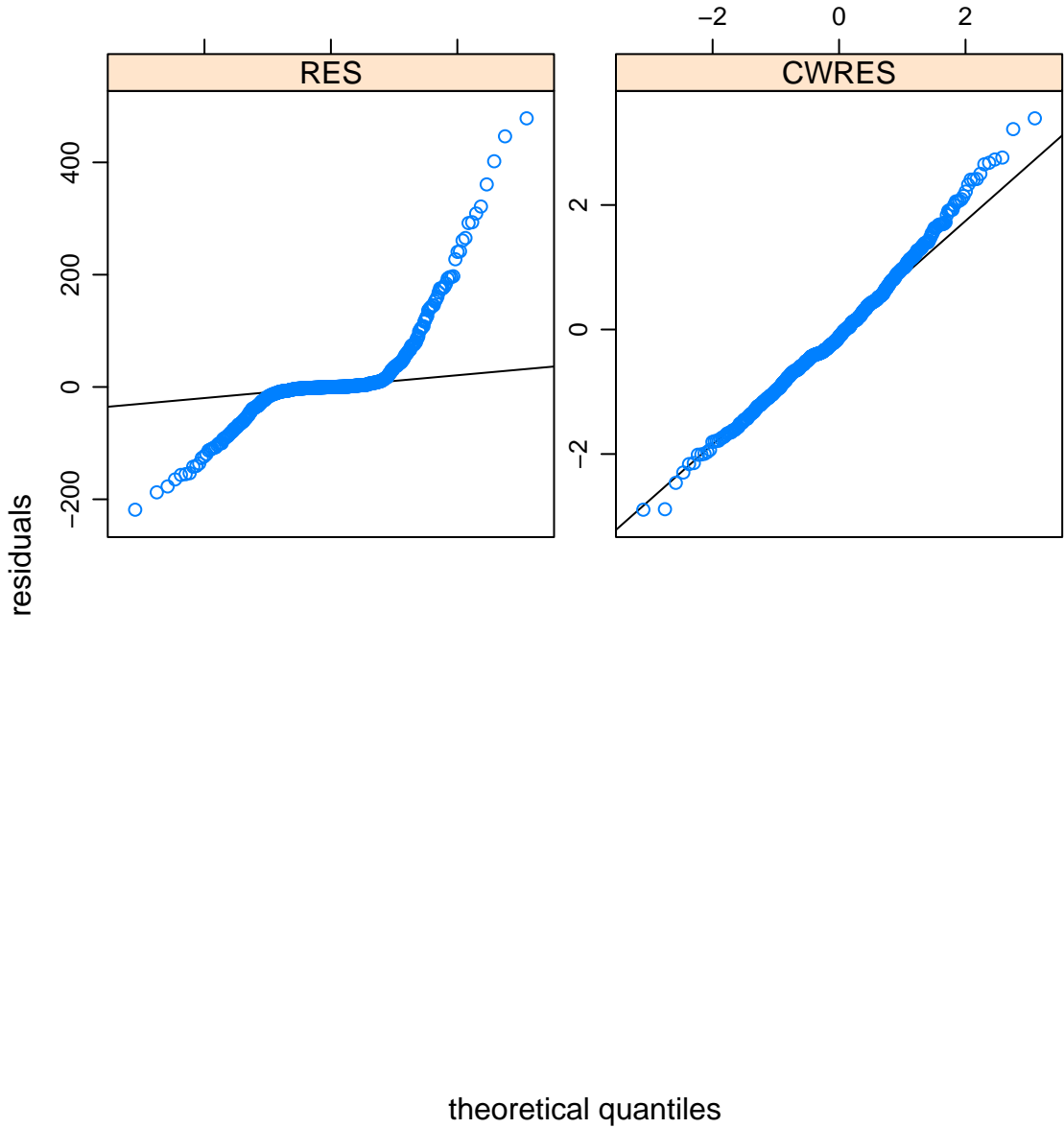
# Model 1003

## Residuals vs. Time for all data



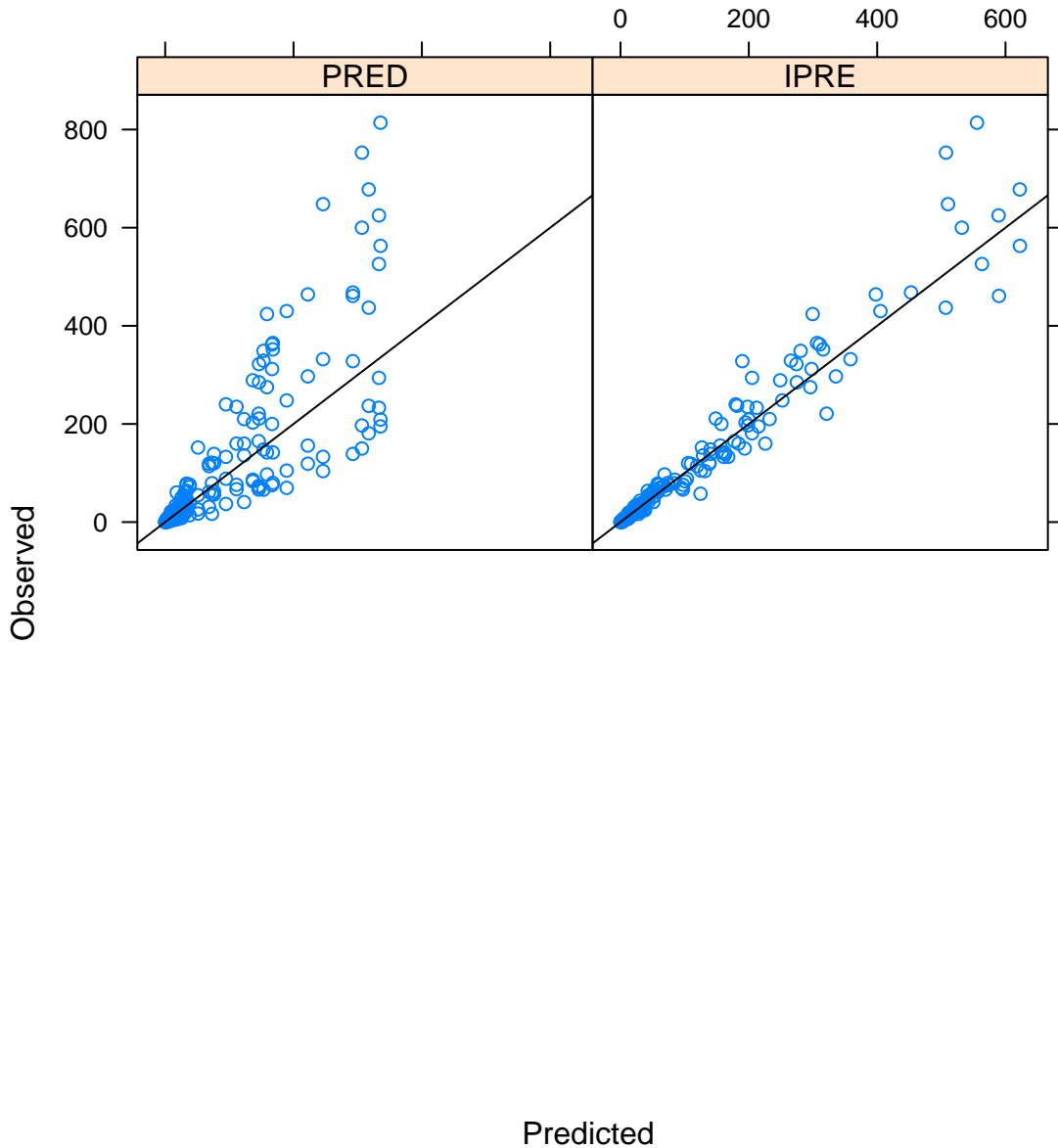
# Model 1003

## Normal Q-Q Plot Residuals for all data



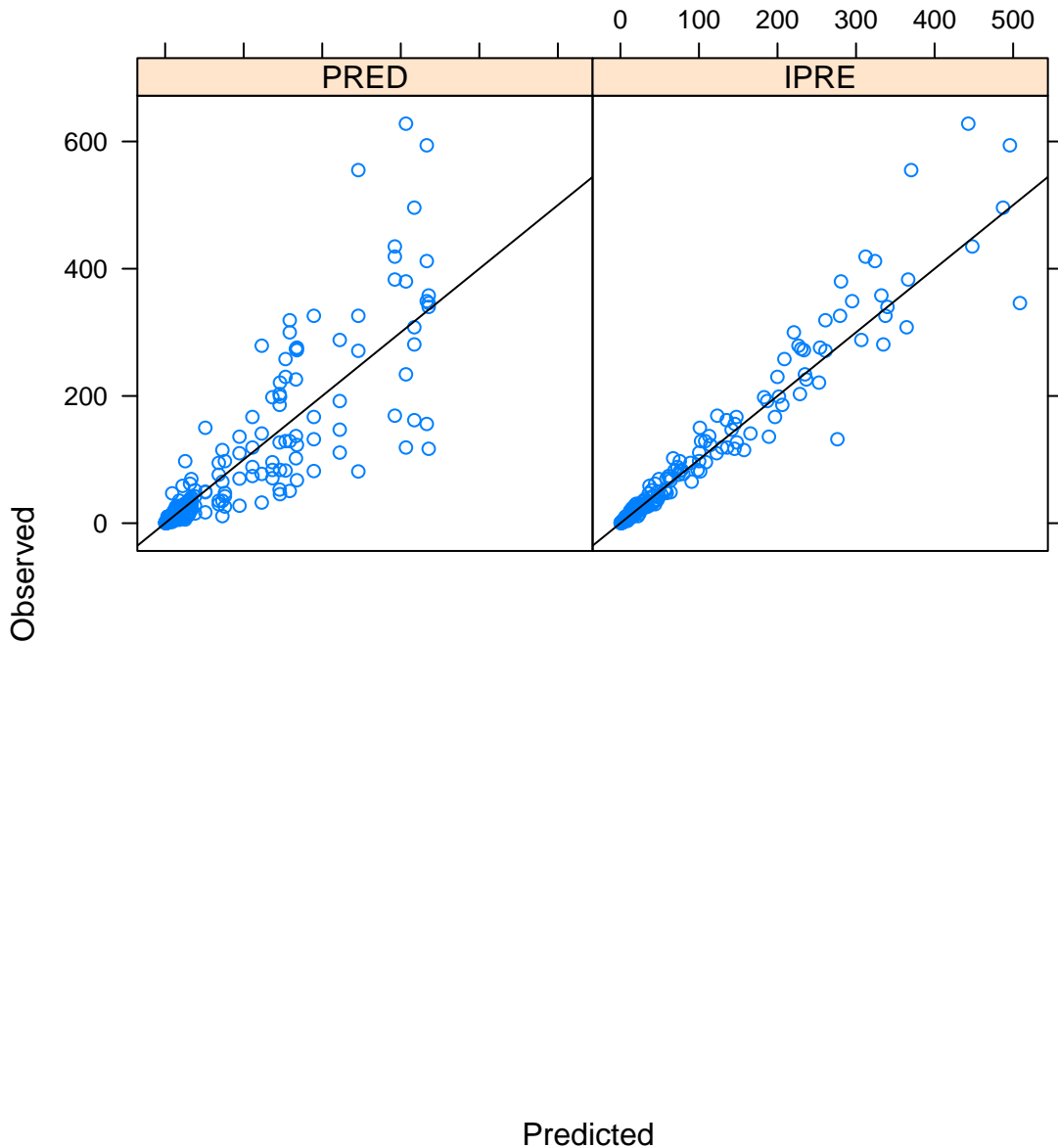
# Model 1003

## Observed vs. Predicted for female data



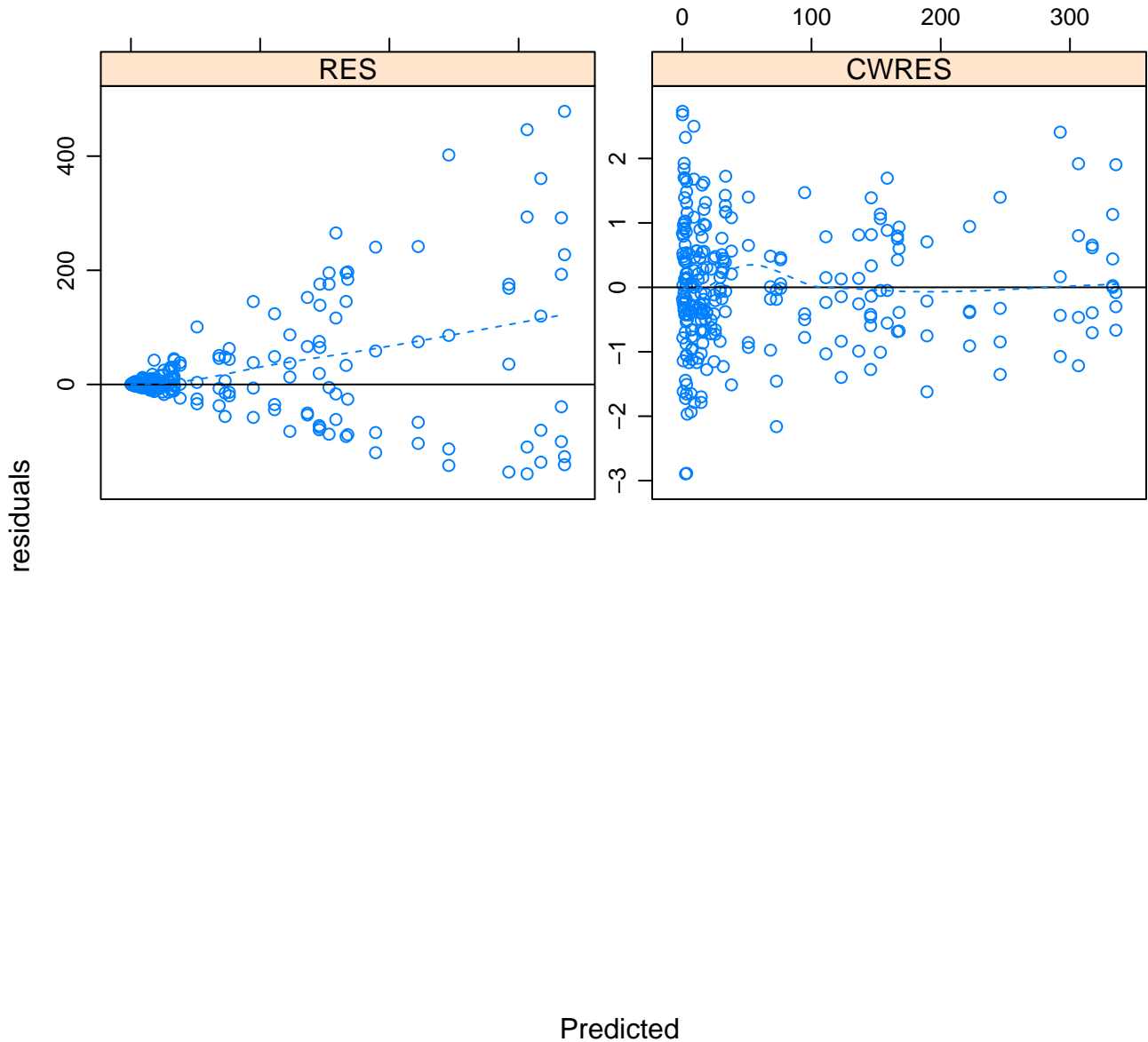
# Model 1003

## Observed vs. Predicted for male data

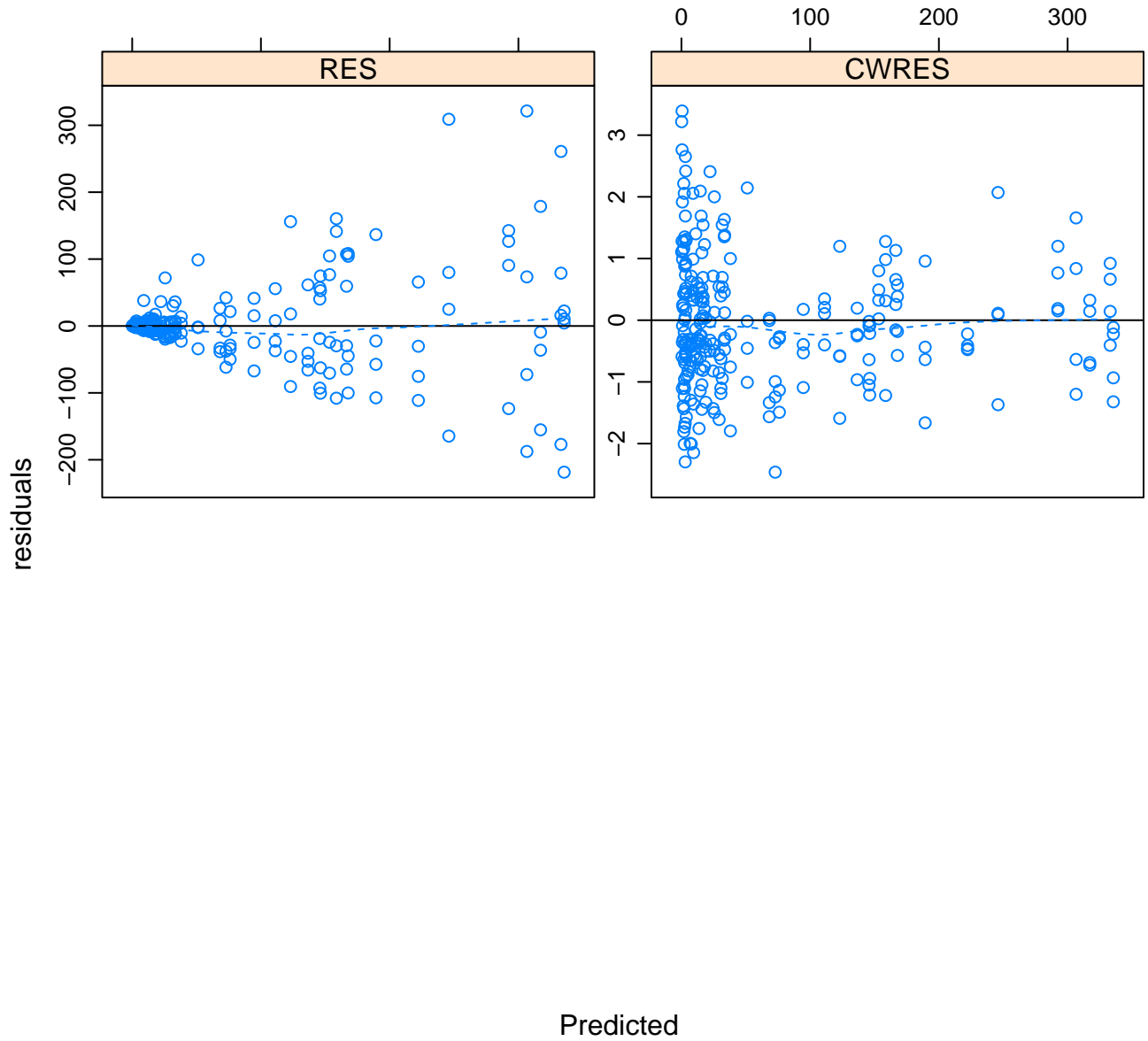


# Model 1003

## Residuals vs. Predicted for female data



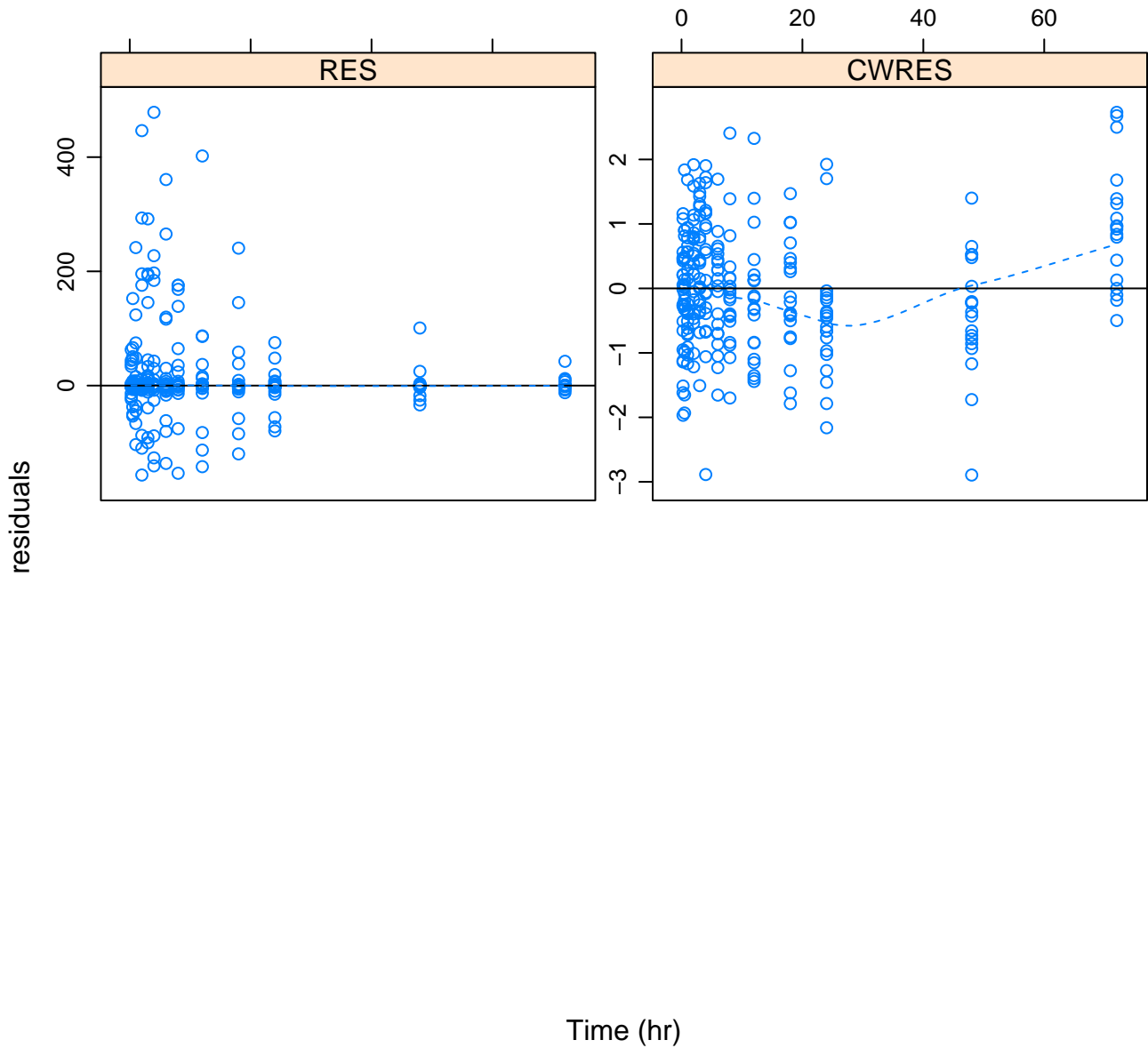
**Model 1003**  
**Residuals vs. Predicted for male data**





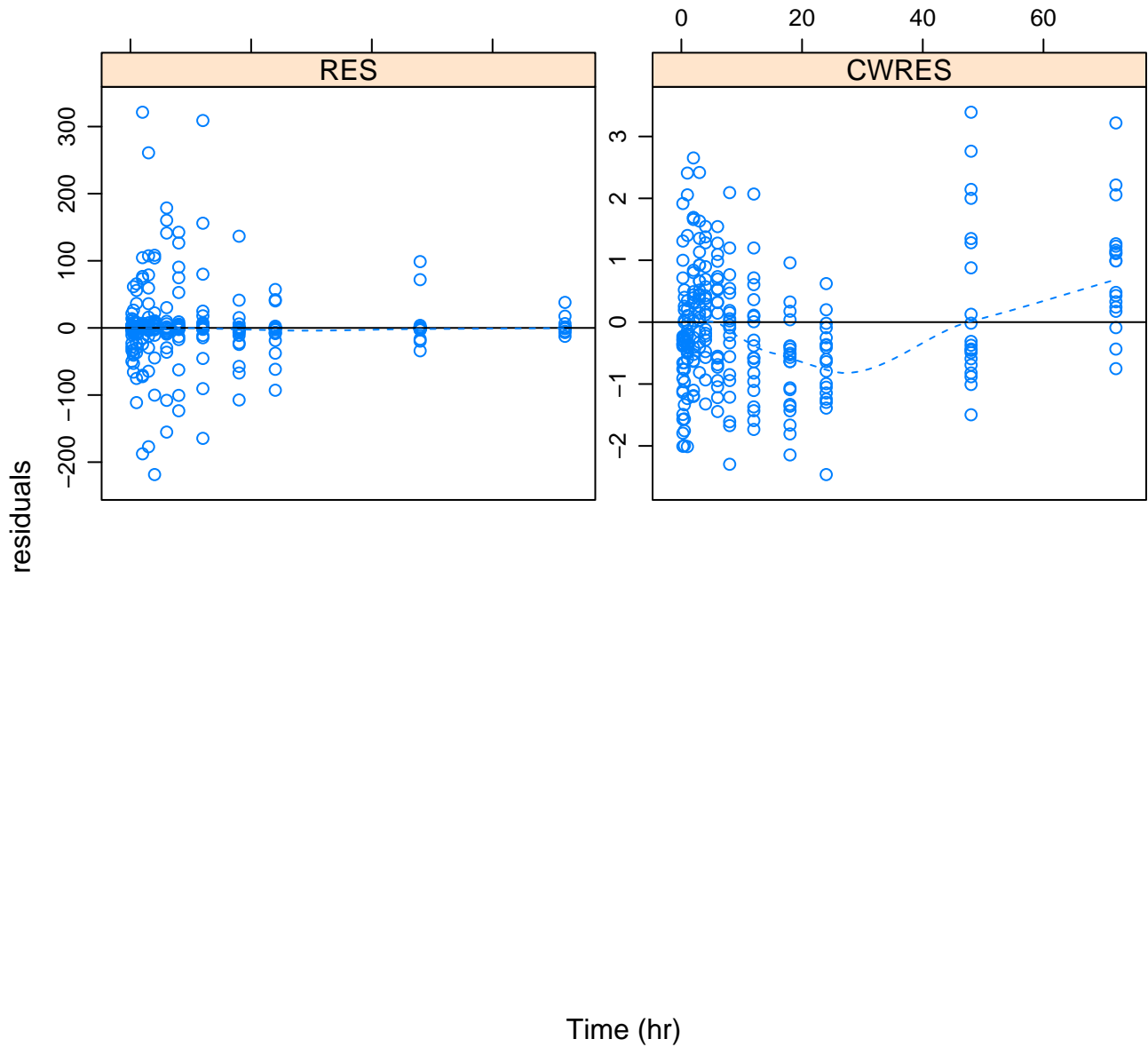
# Model 1003

## Residuals vs. Time for female data



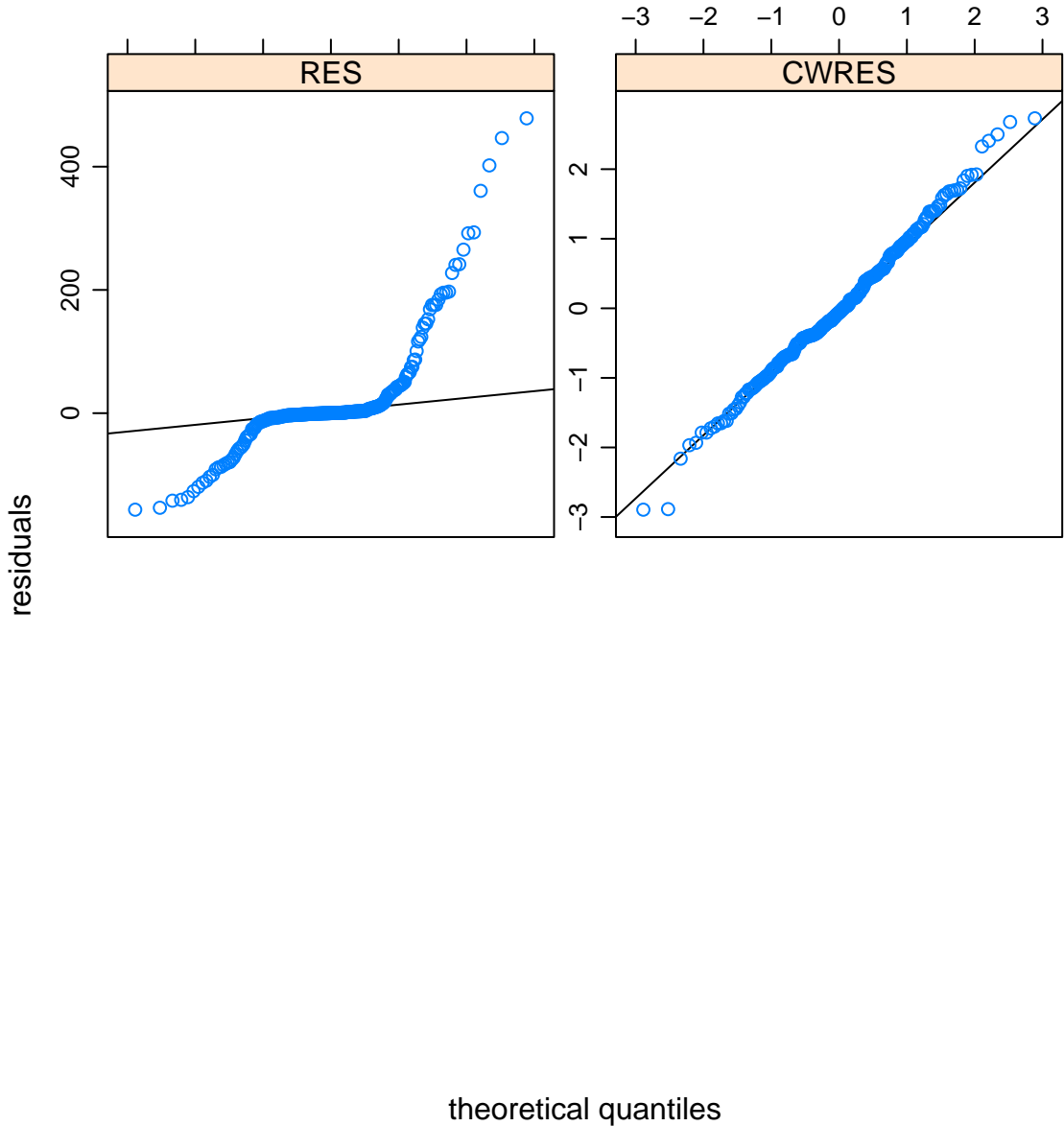
# Model 1003

## Residuals vs. Time for male data



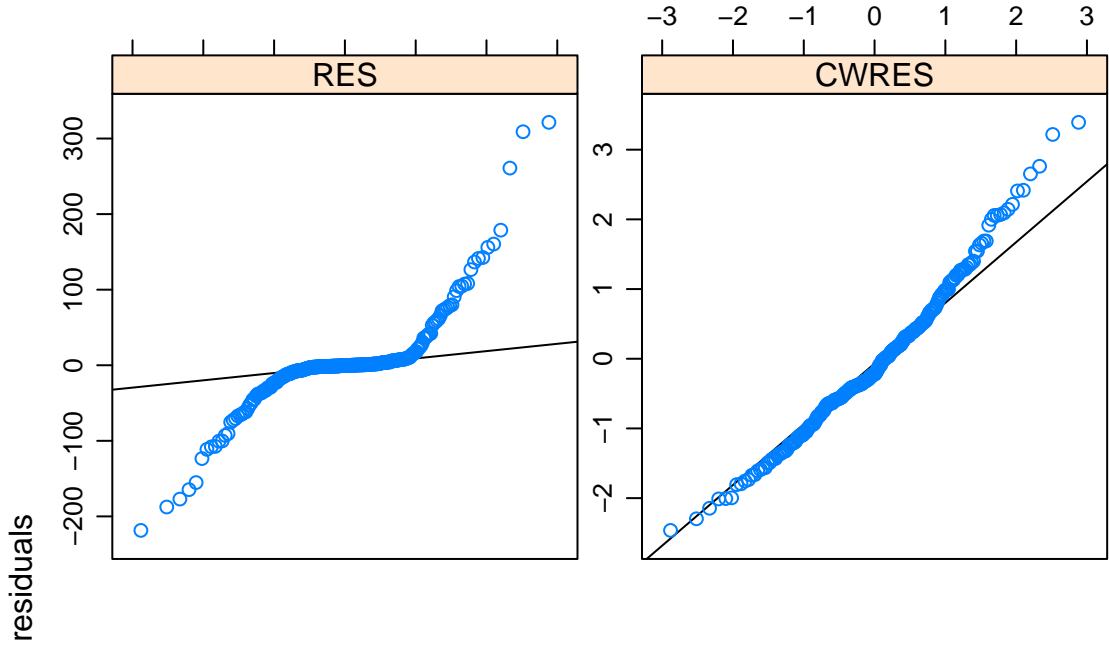
# Model 1003

## Normal Q-Q Plot Residuals for female data



# Model 1003

## Normal Q-Q Plot Residuals for male data



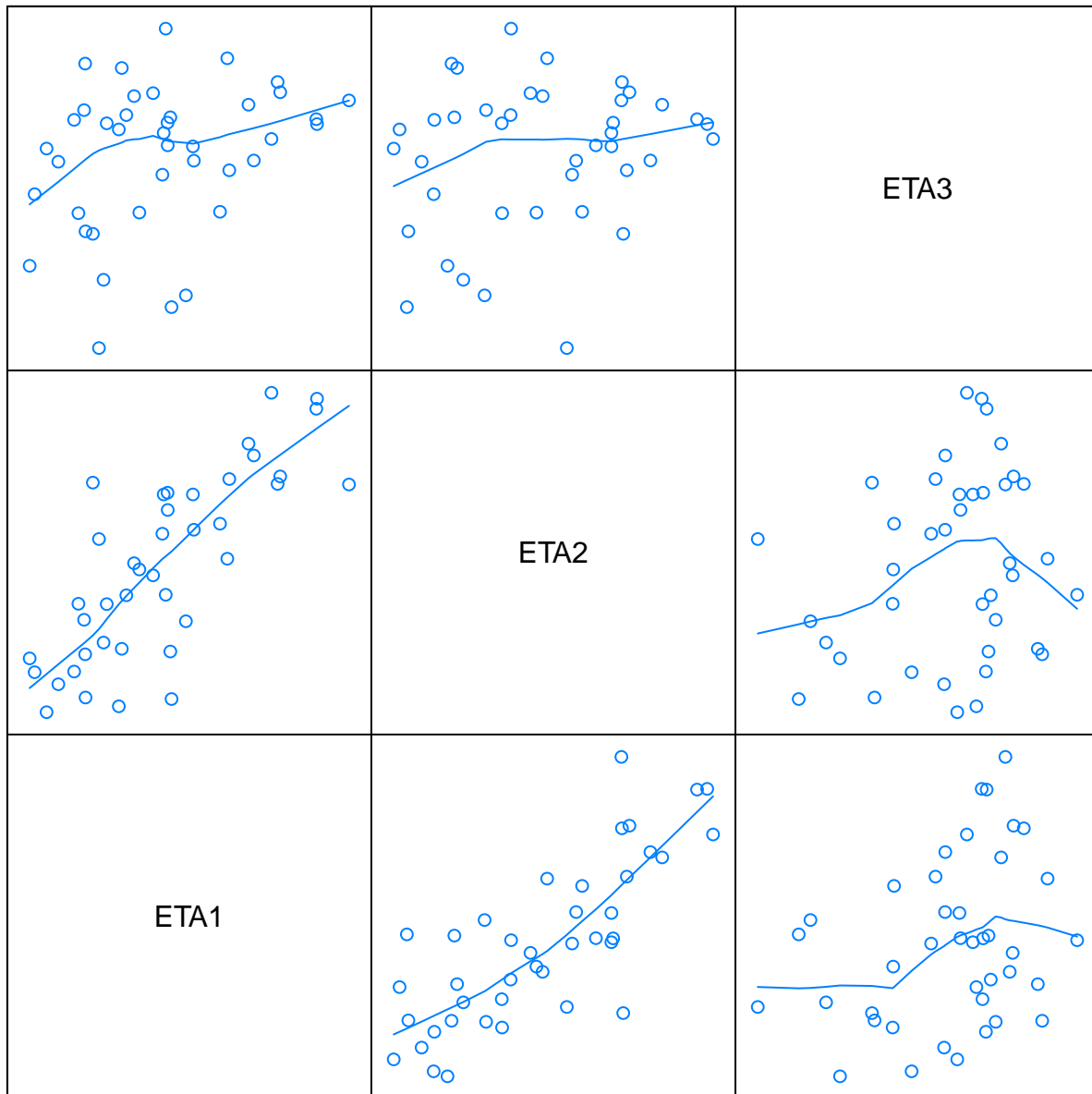
# Covariate Scatterplots



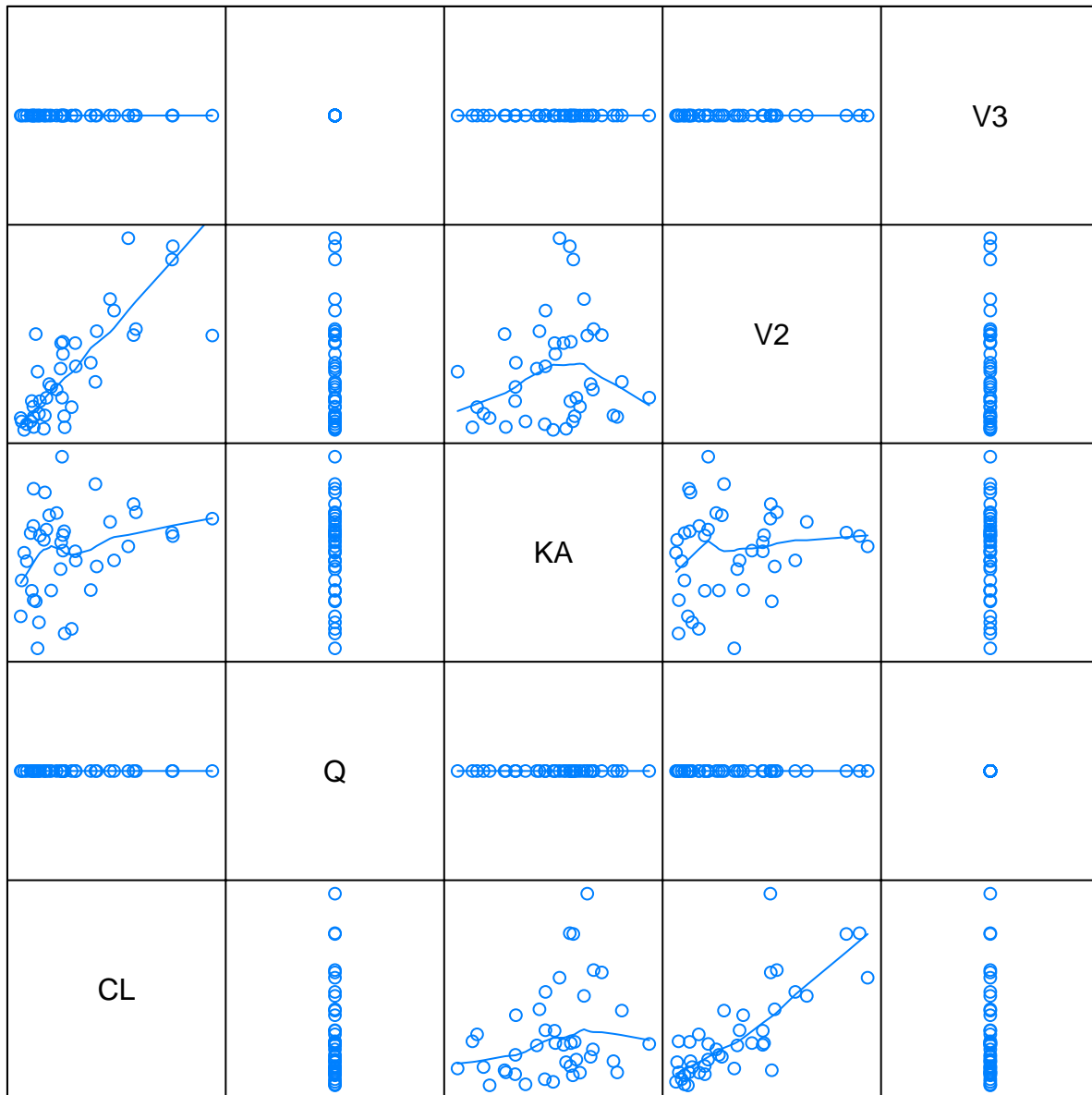
# Continuous Covariates vs. Categorical Covariates



# ETA Scatterplots

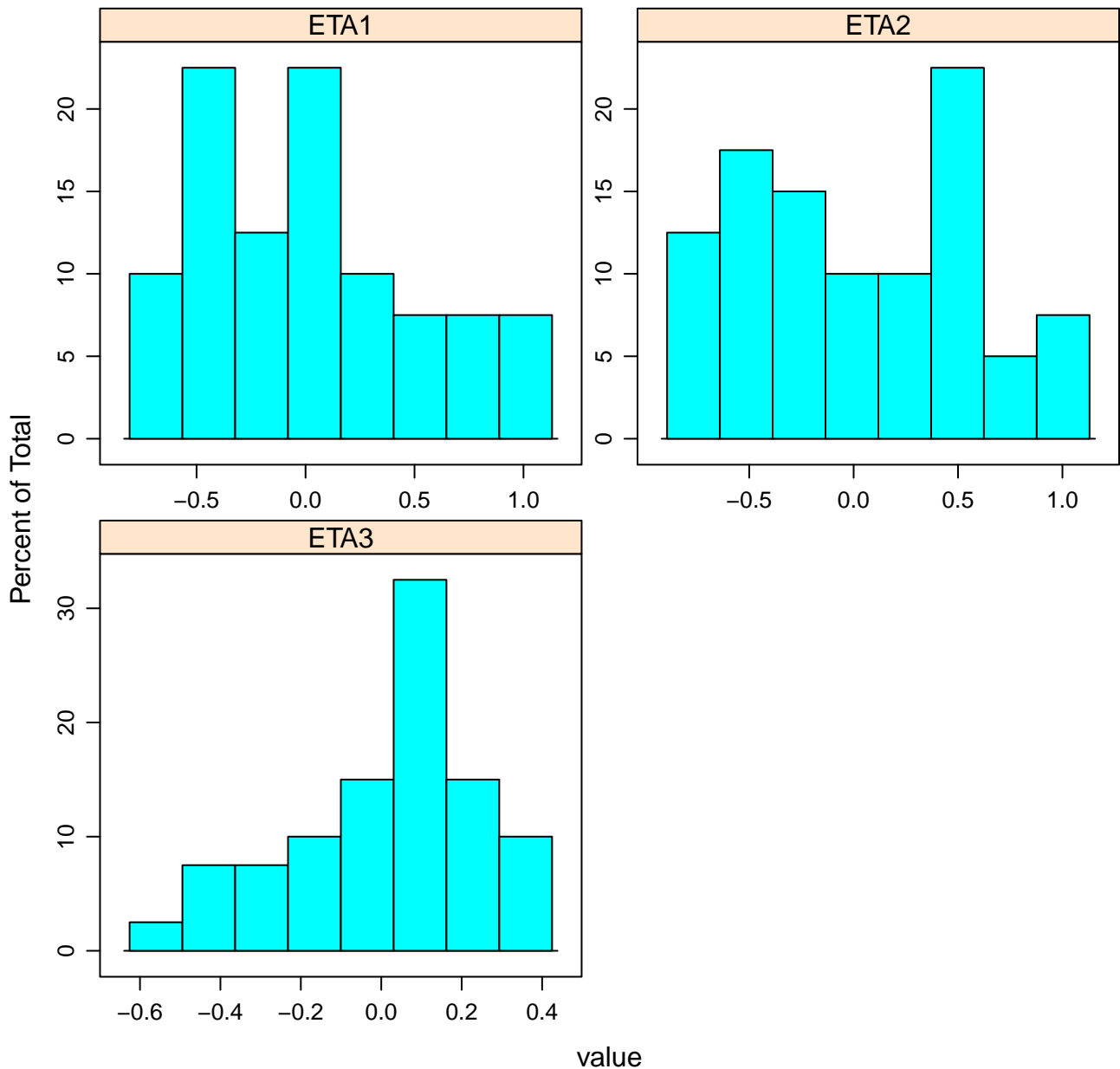


# Parameter Scatterplots

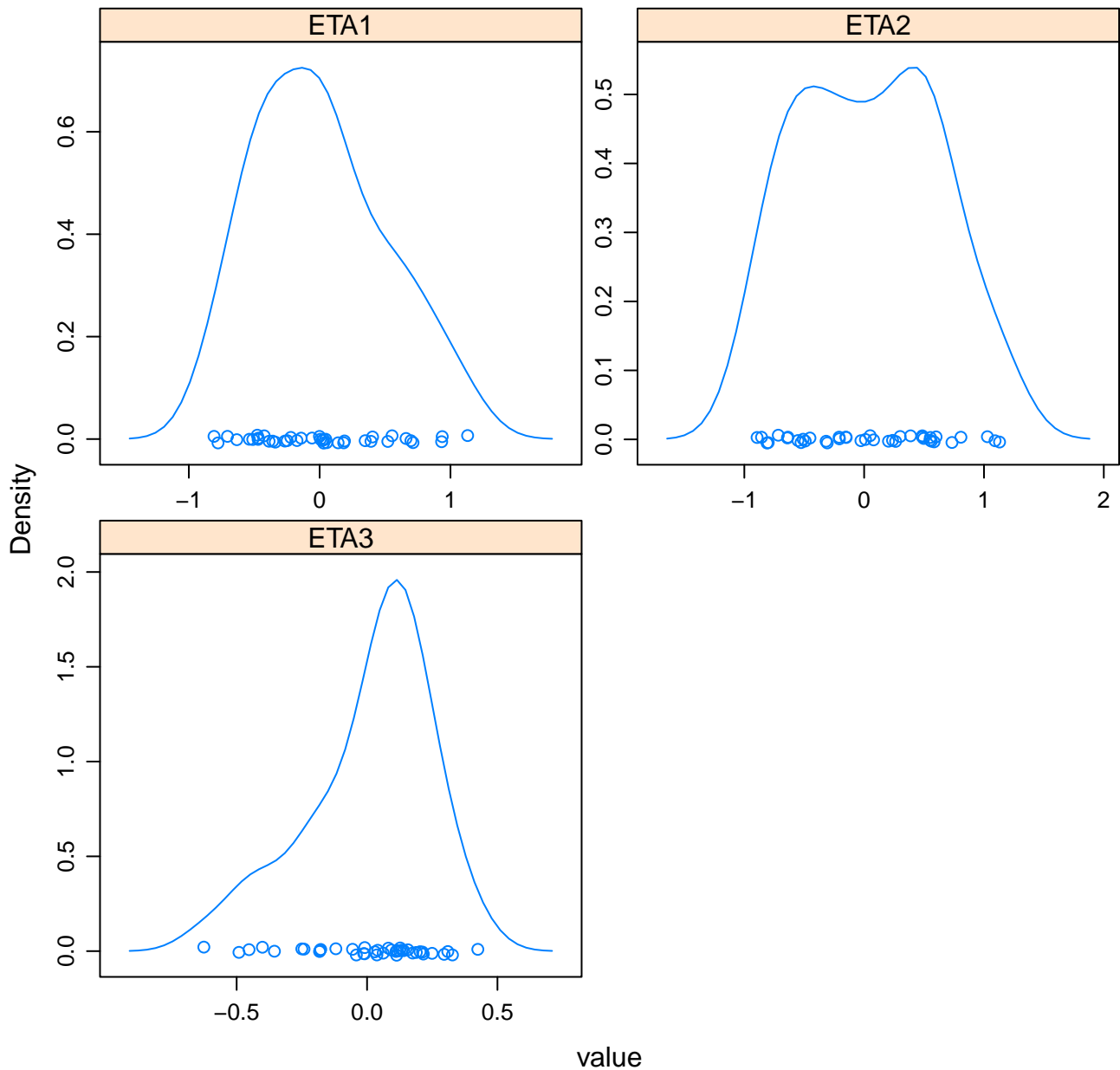




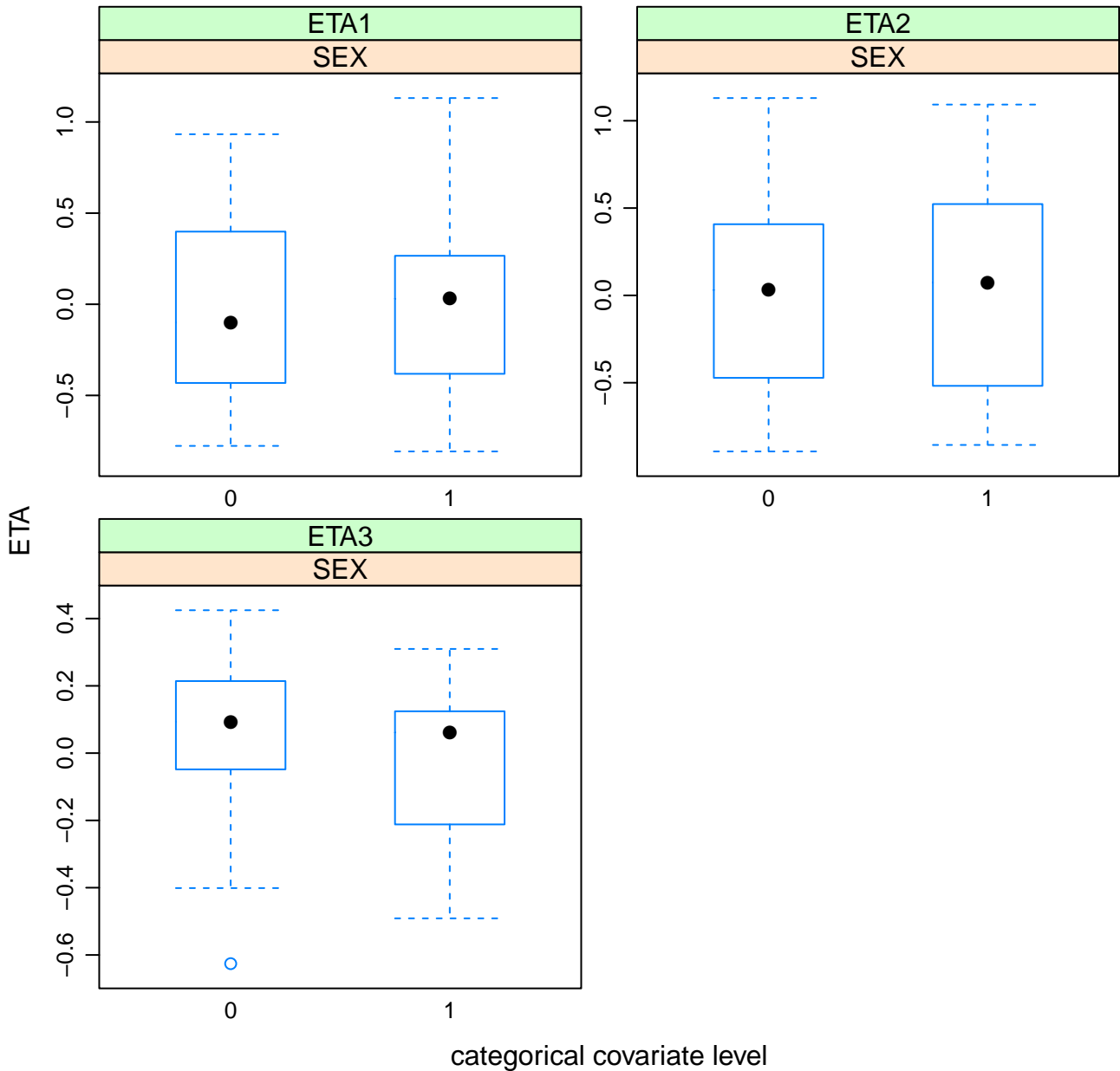
# Histograms of Etas



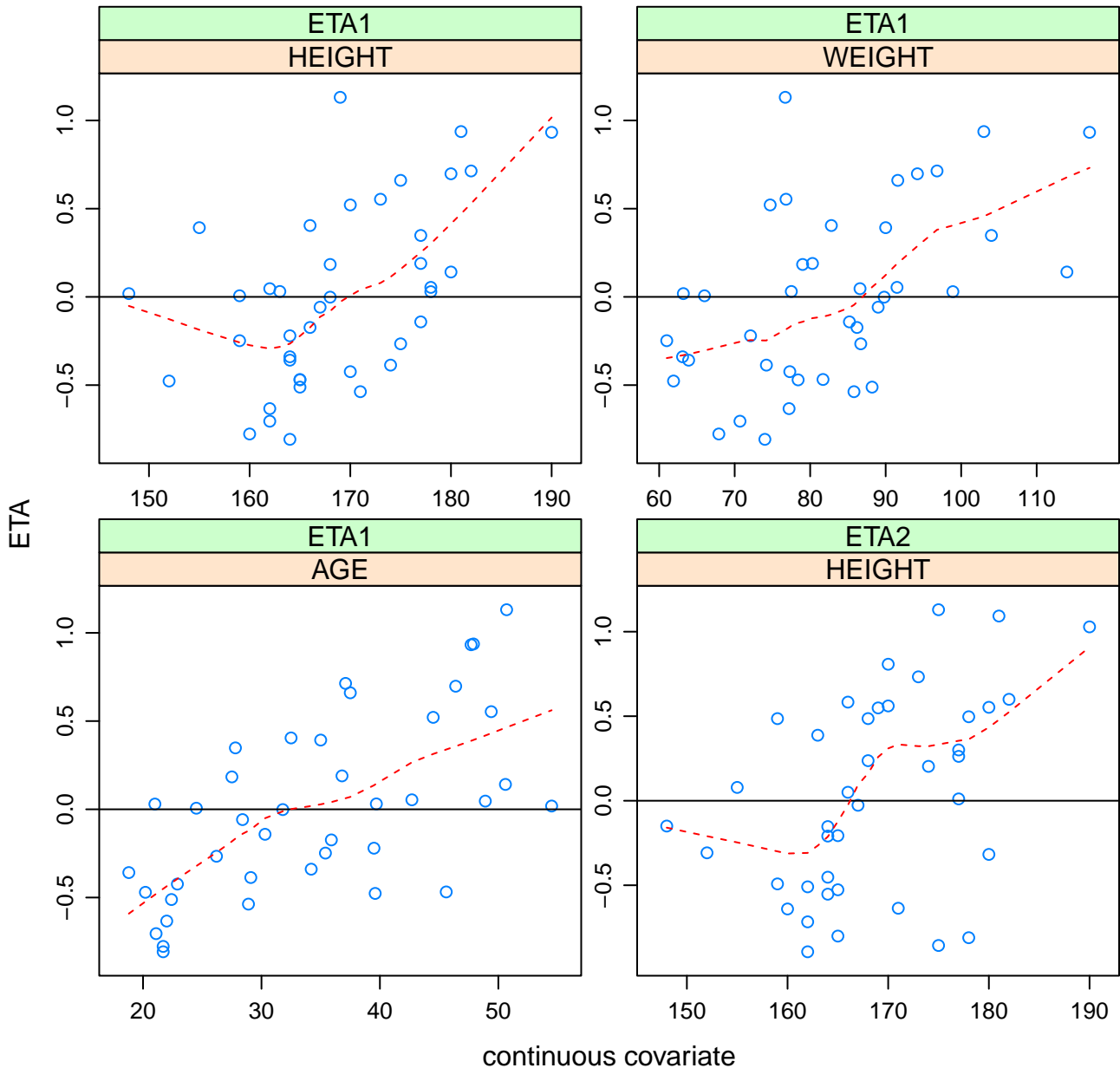
# Density of Etas



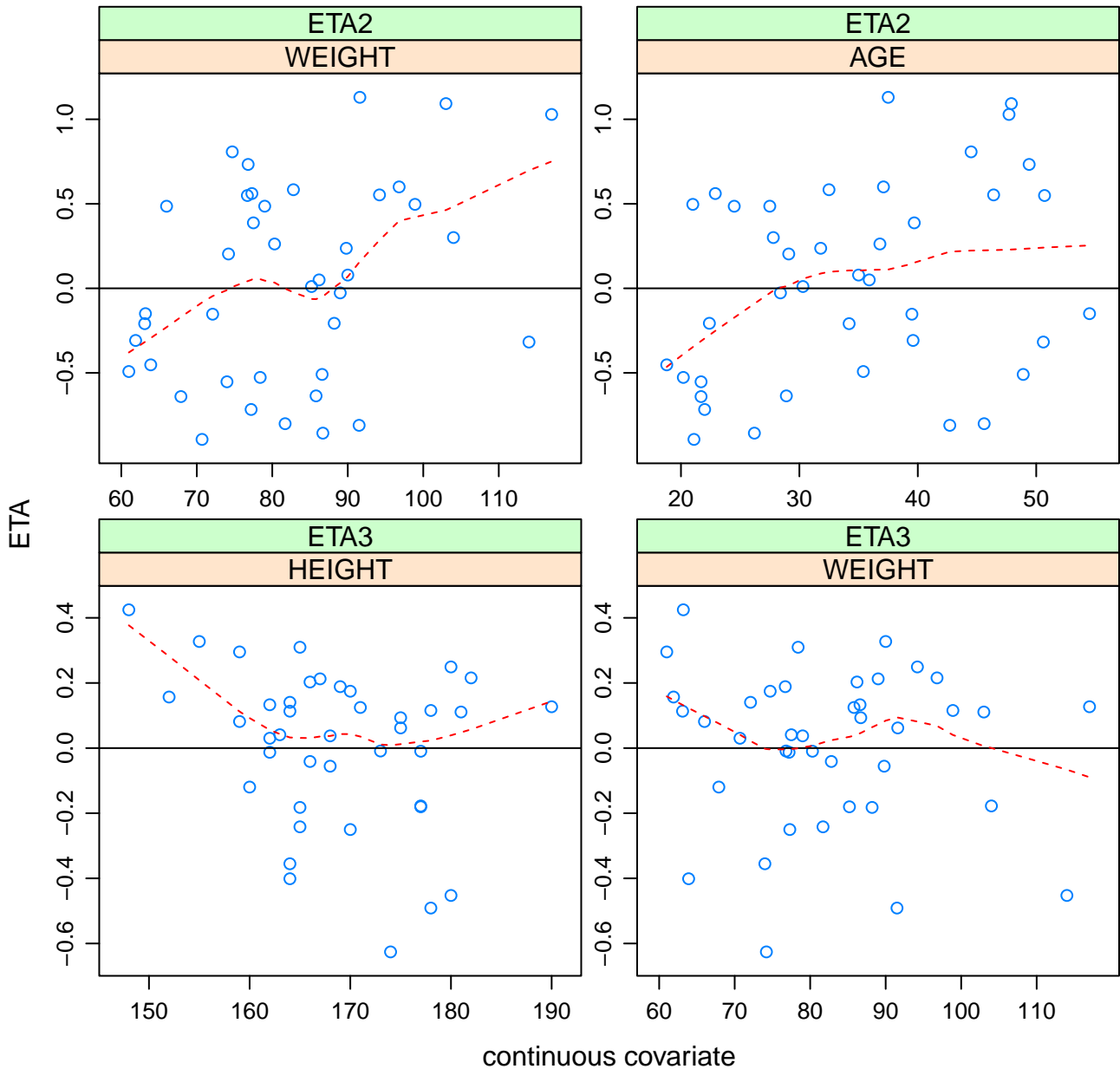
# Boxplots of Etas by Categorical Covariate



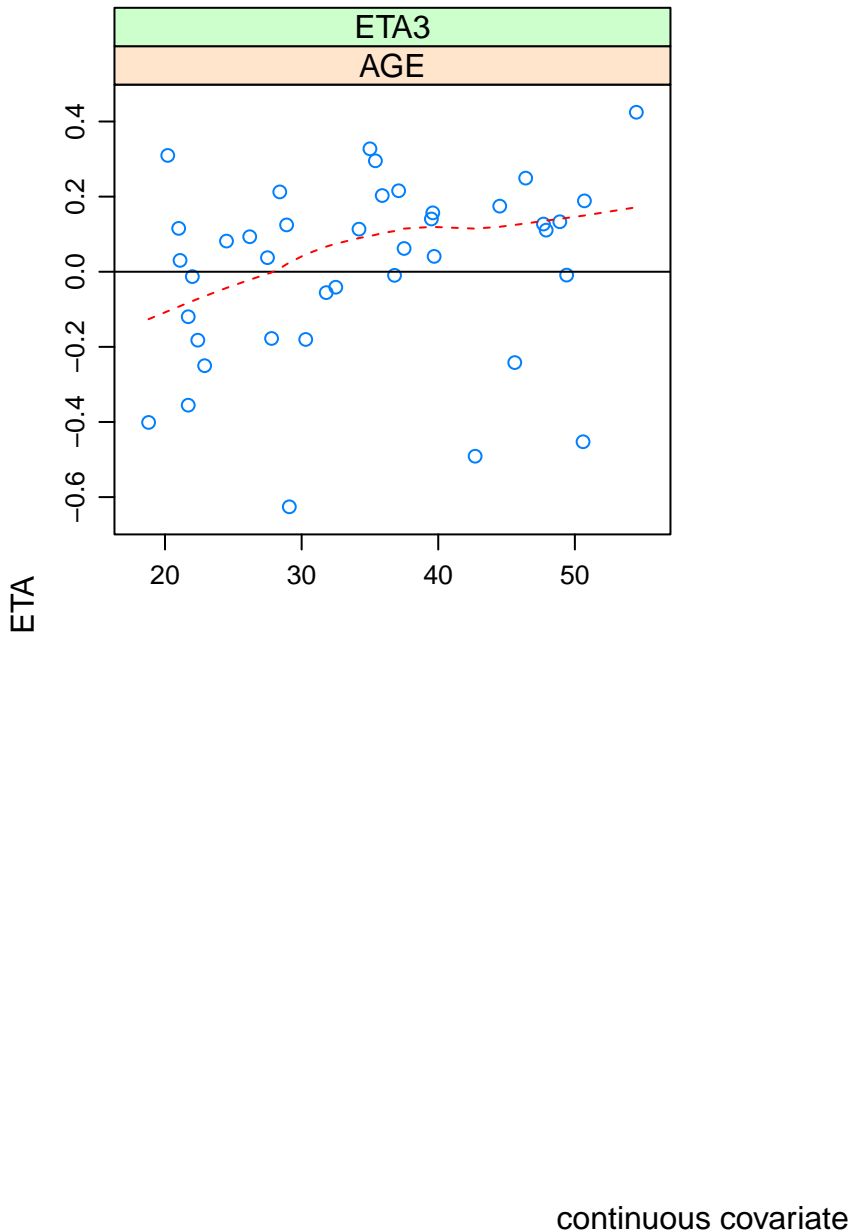
# Etas vs. Continuous Covariates



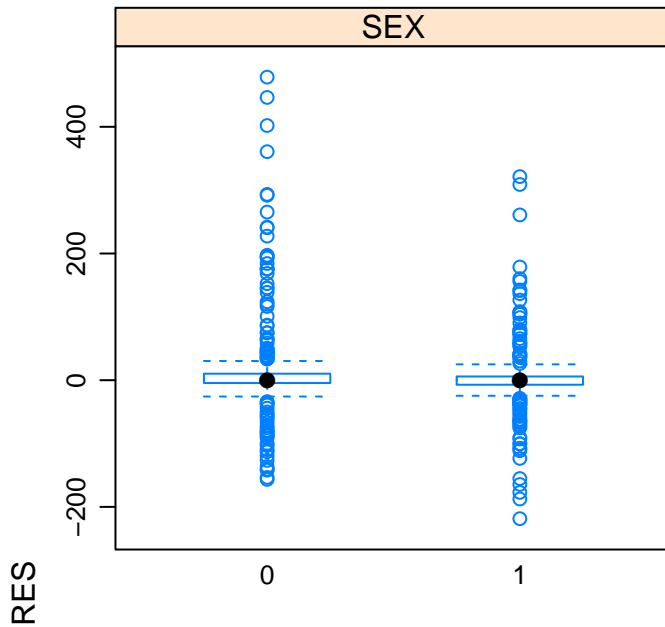
# Etas vs. Continuous Covariates



# Etas vs. Continuous Covariates

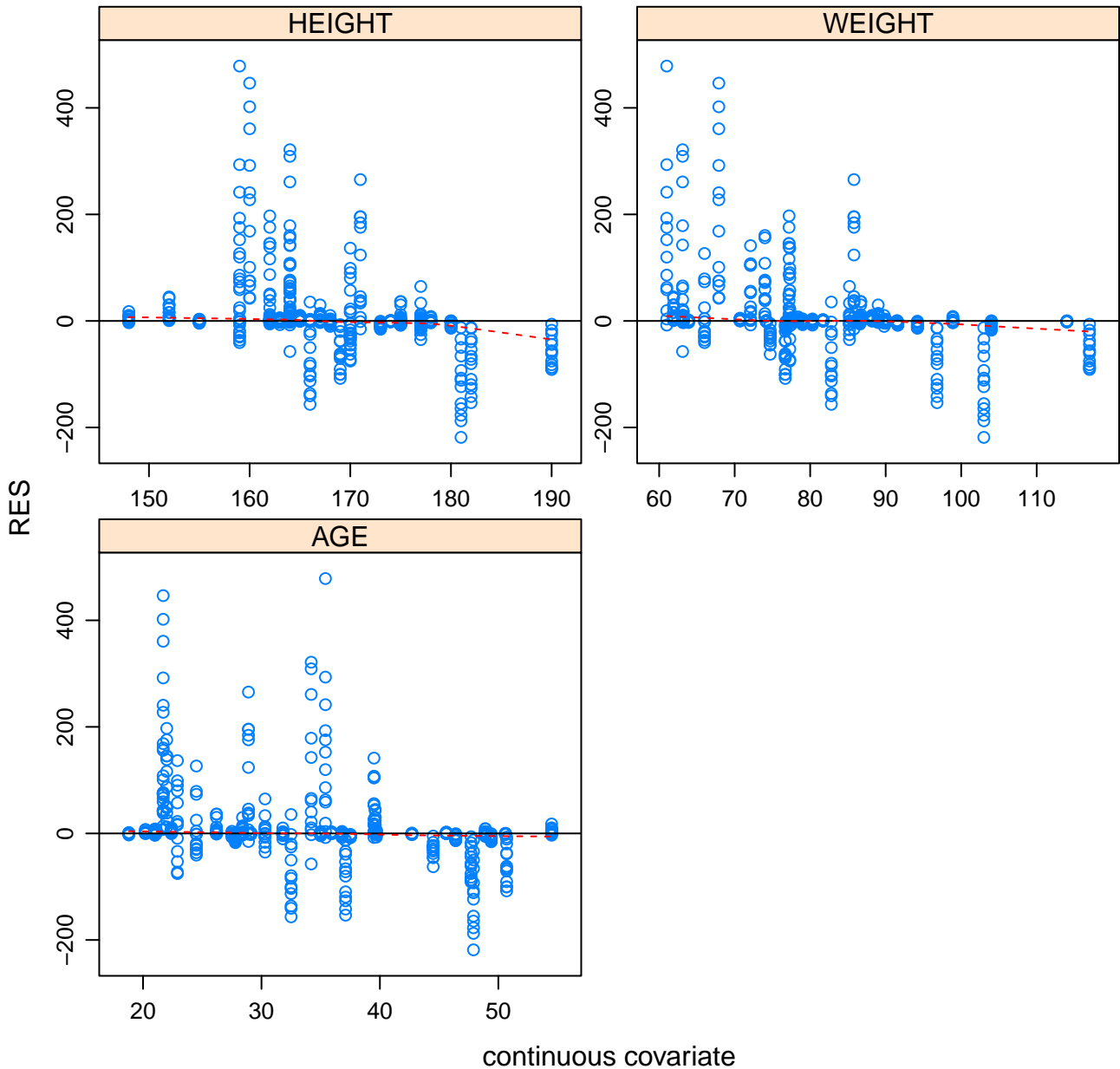


# RES vs. Categorical Covariates



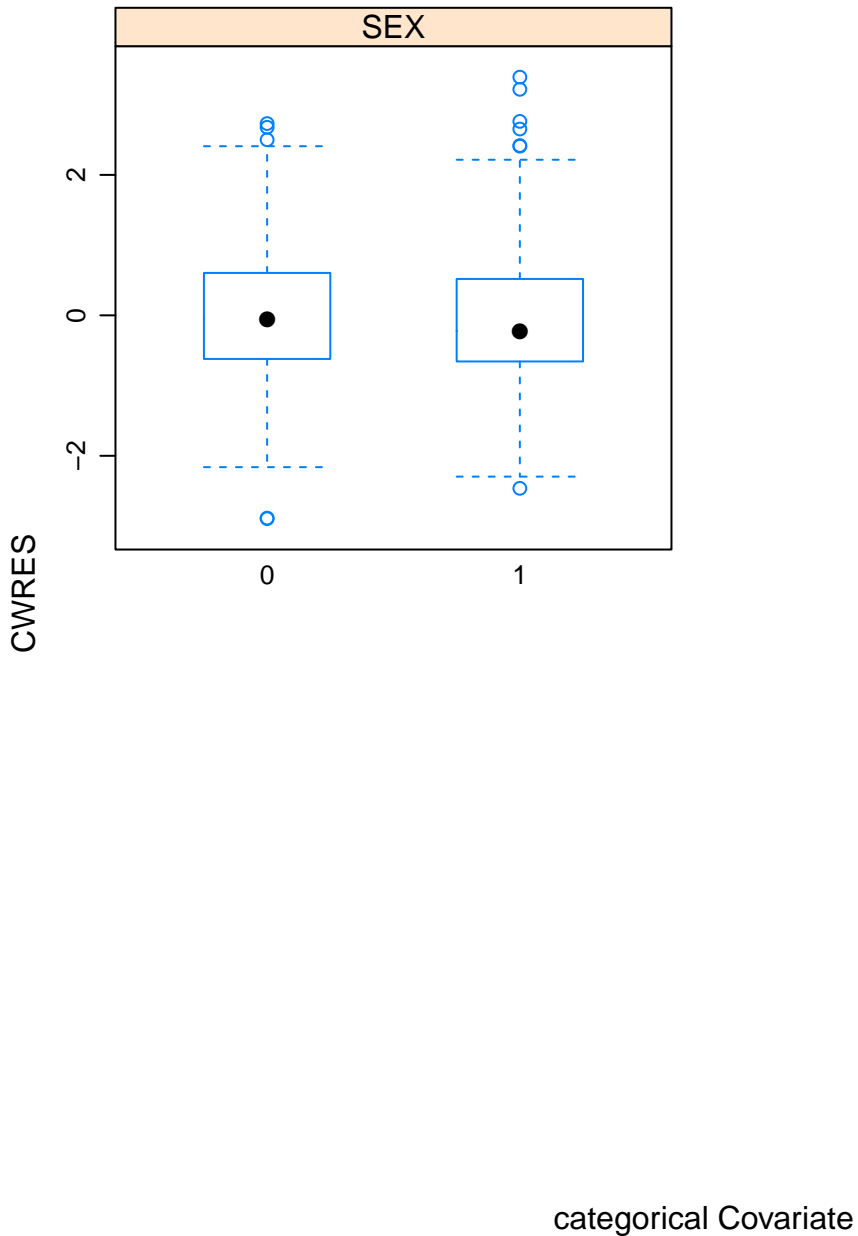
categorical Covariate

# RES vs. Continuous Covariates





# CWRES vs. Categorical Covariates



# CWRES vs. Continuous Covariates

CWRES

HEIGHT

2  
0  
-2

150 160 170 180 190

WEIGHT

2  
0  
-2

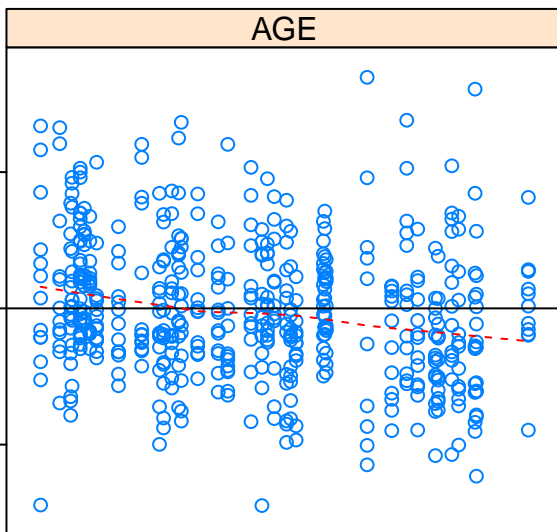
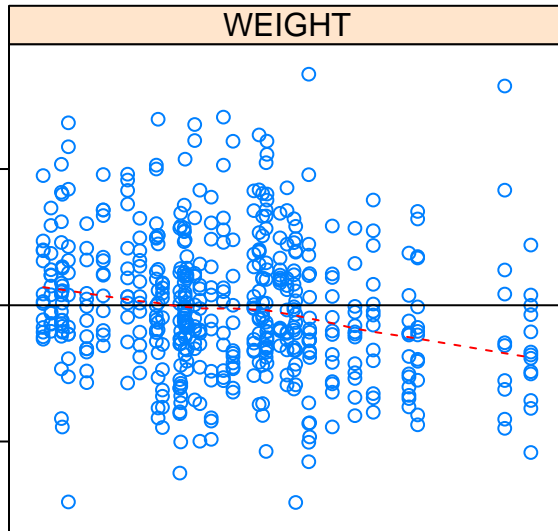
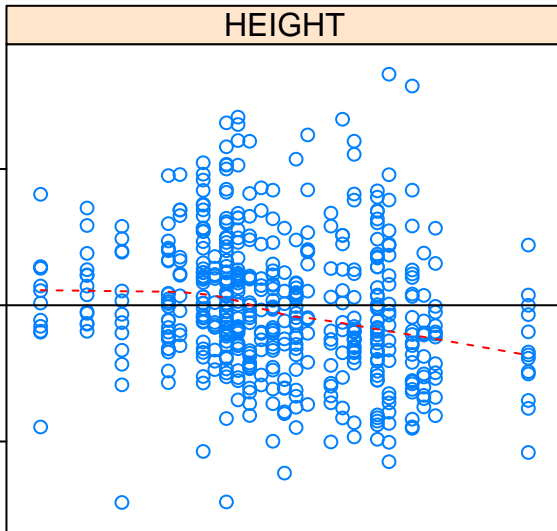
60 70 80 90 100 110

AGE

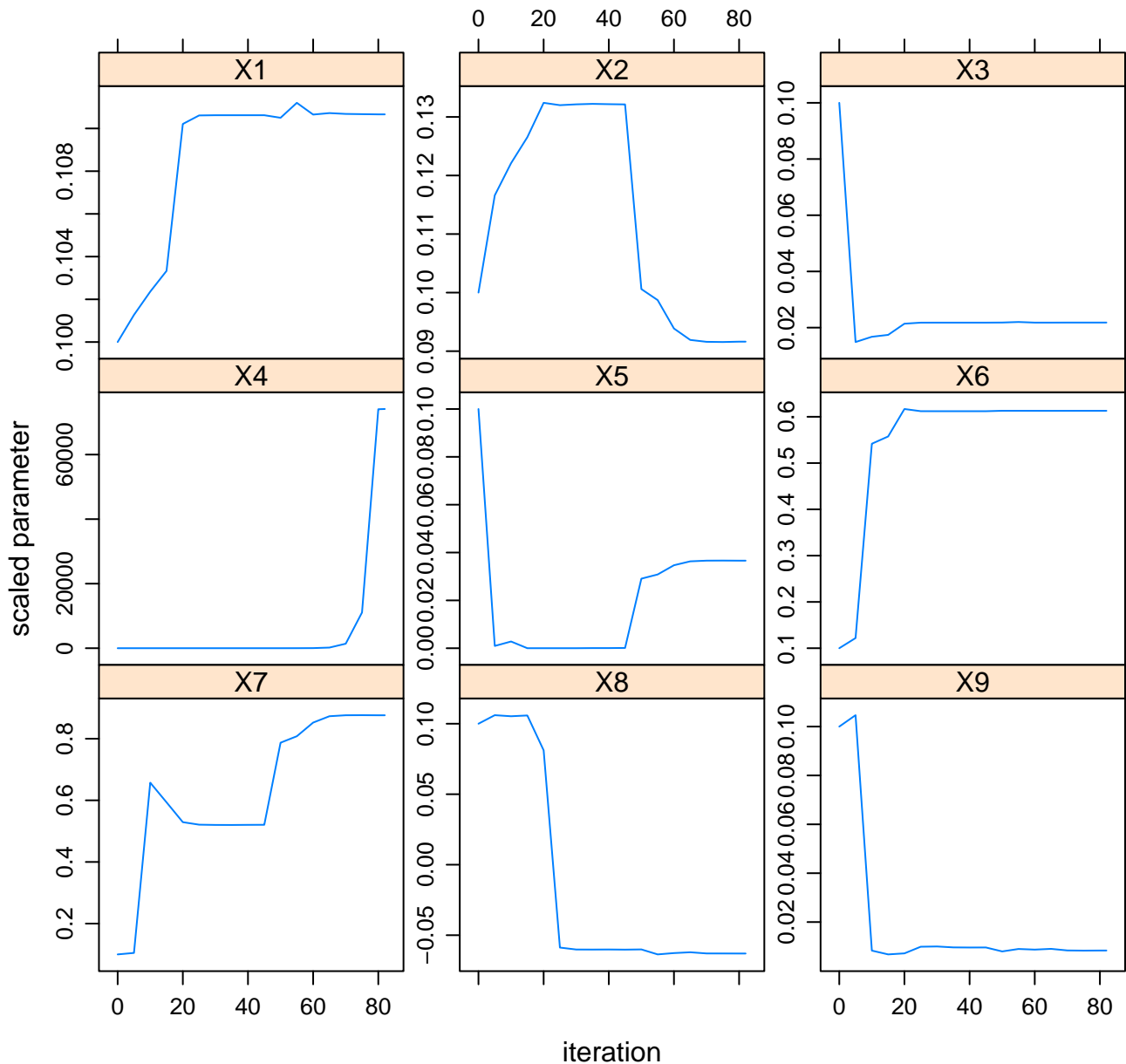
2  
0  
-2

20 30 40 50

continuous covariate



# Model 1003 parameter search



# Model 1003 gradient search

