Model 1004
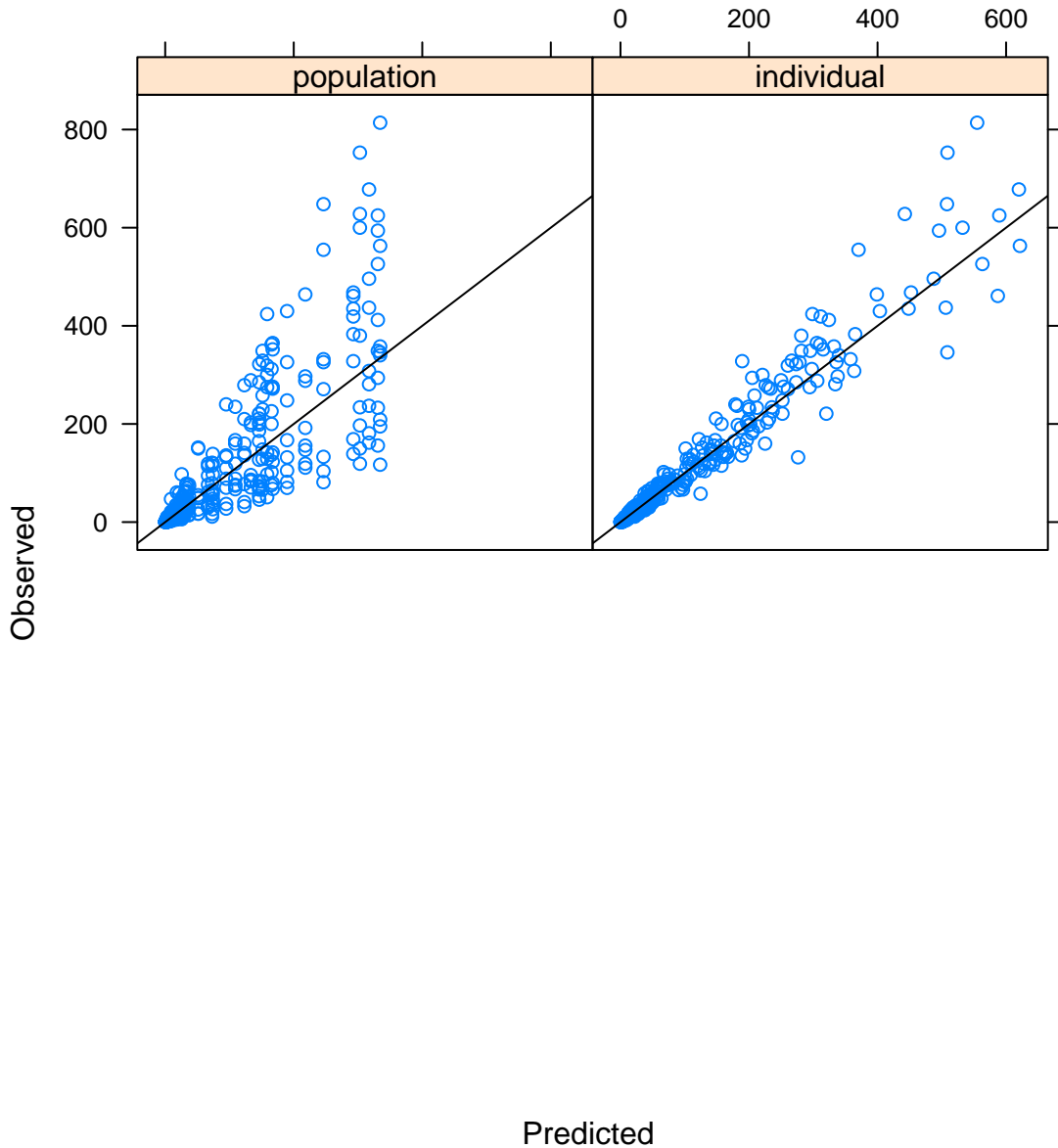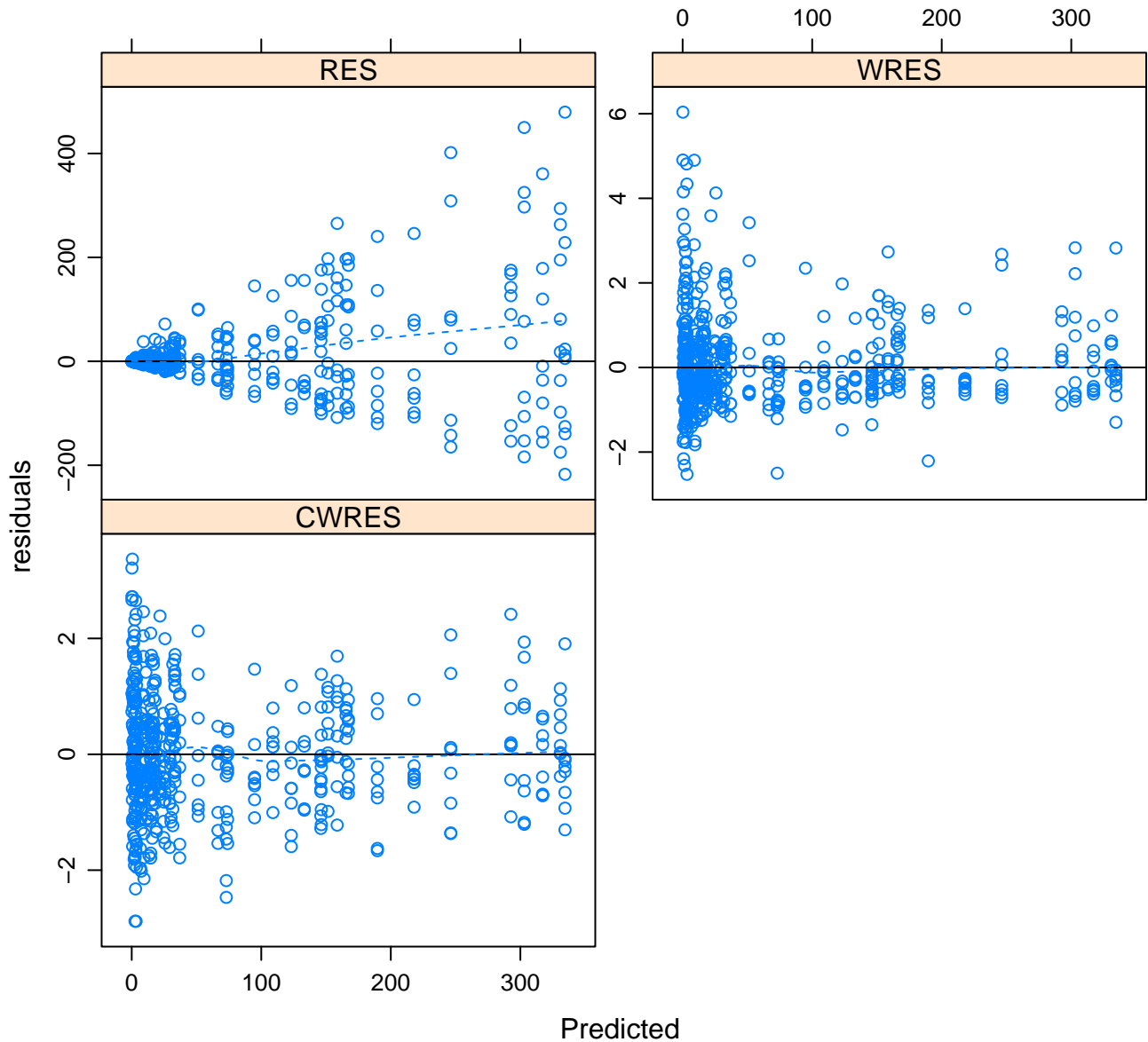**Observed vs. Predicted for all data**
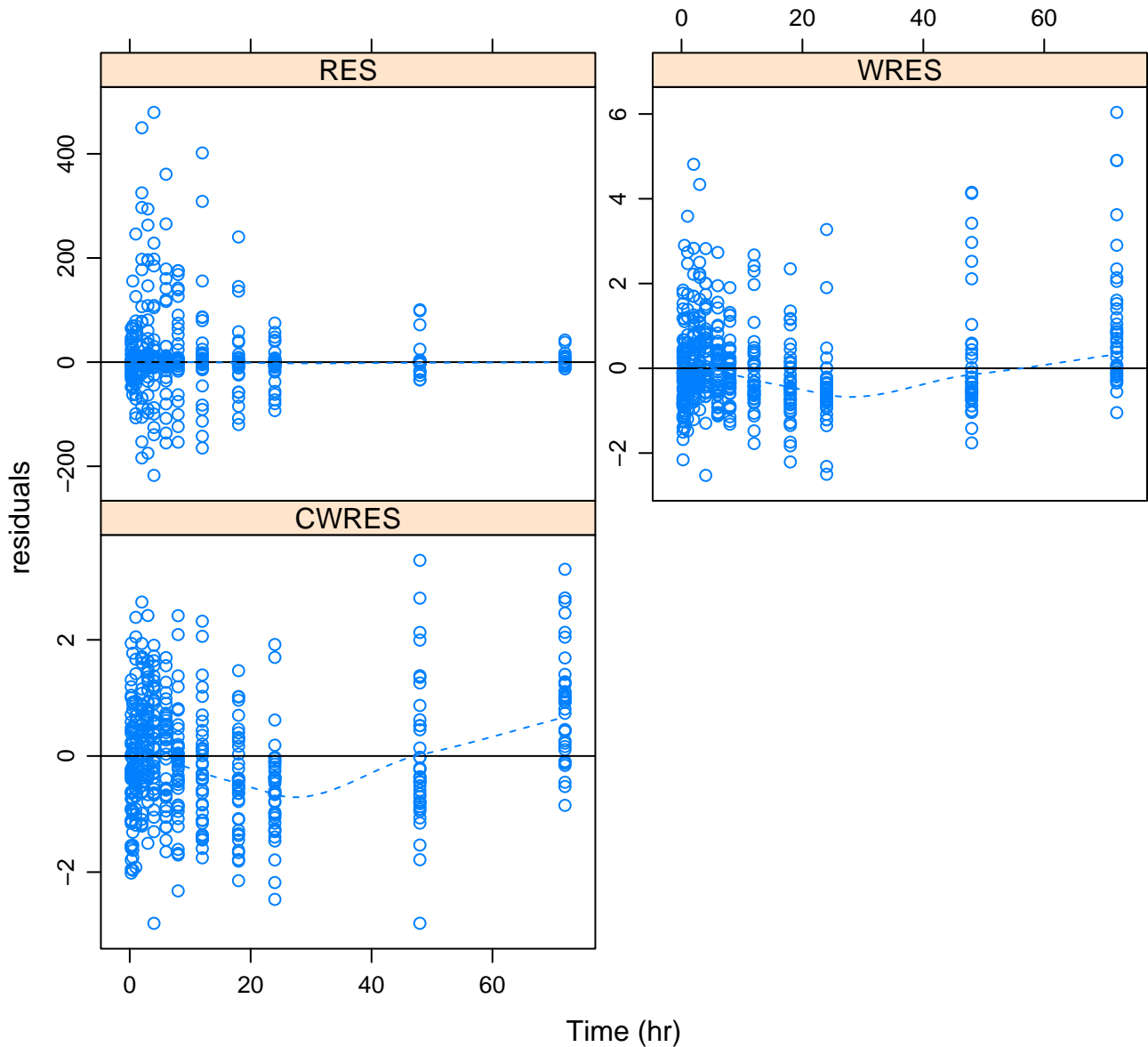
Model 1004
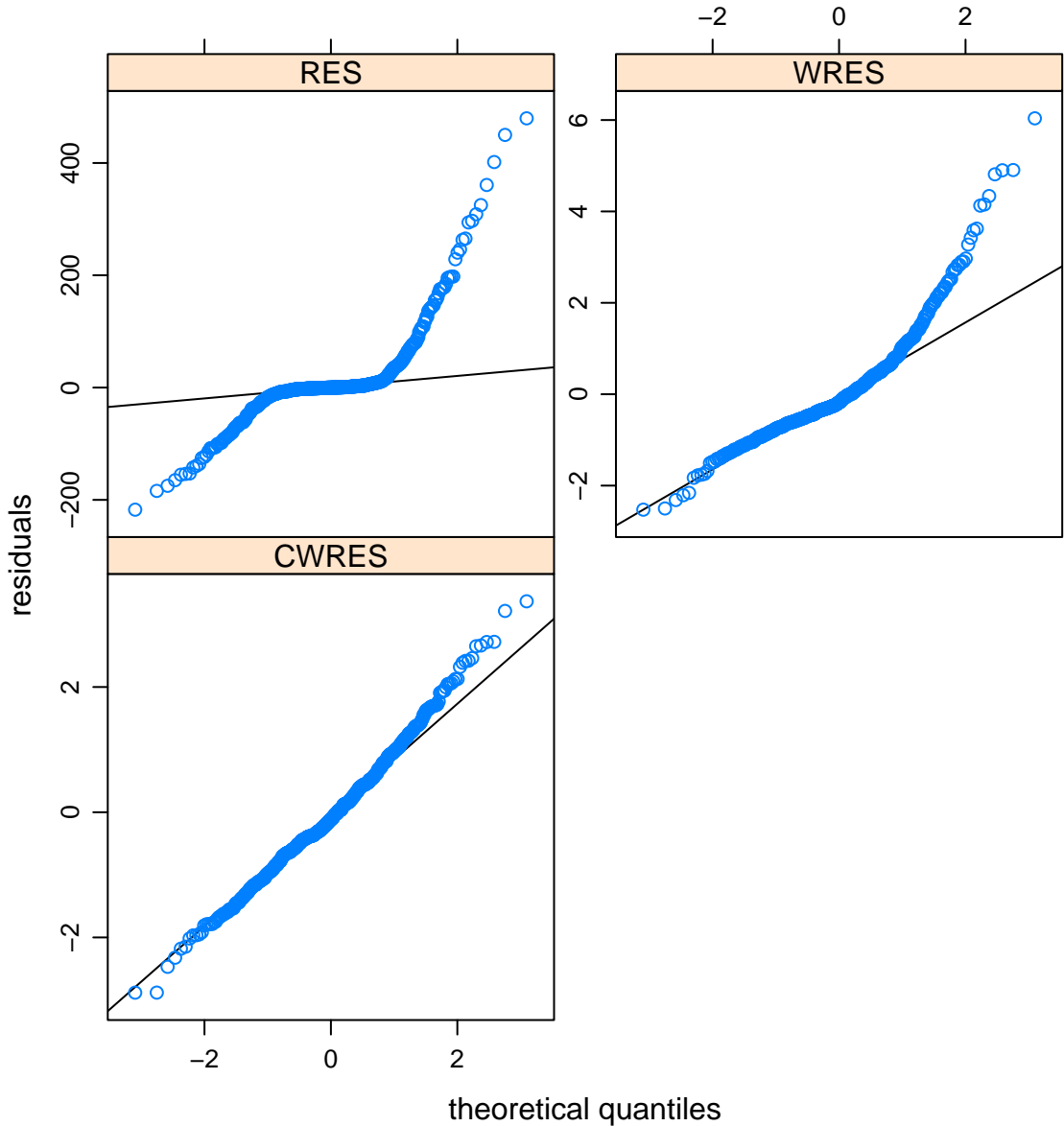**Residuals vs. Predicted for all data**

Model 1004
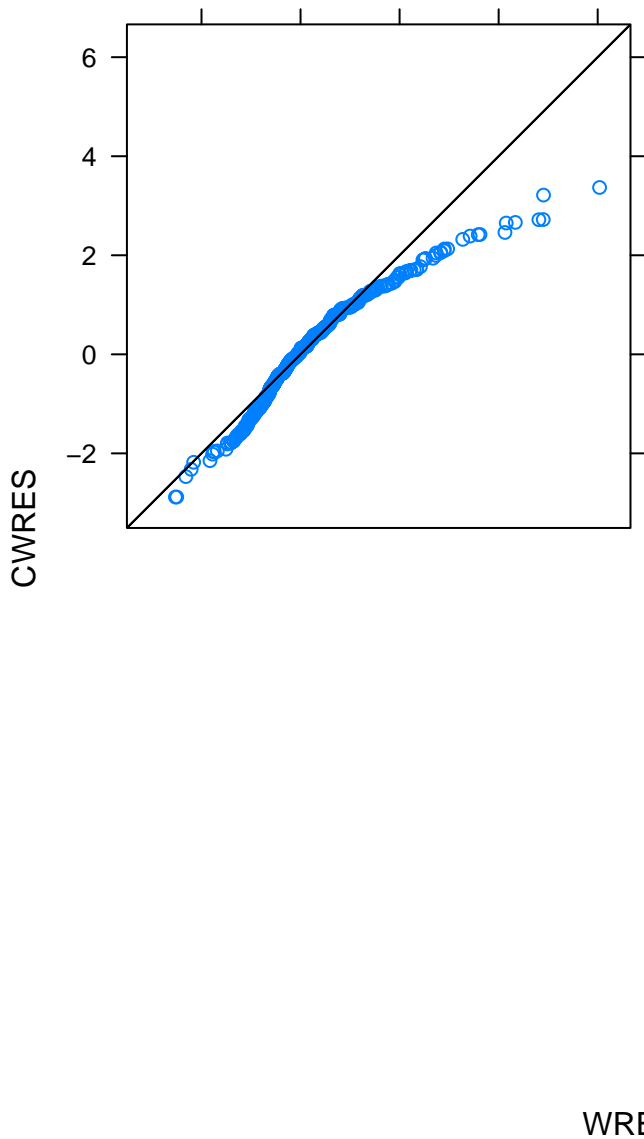**Residuals vs. Time for all data**

Model 1004
Normal Q–Q Plot Residuals for all data

Model 1004
Q−Q Plot of CWRES vs. WRES for all data
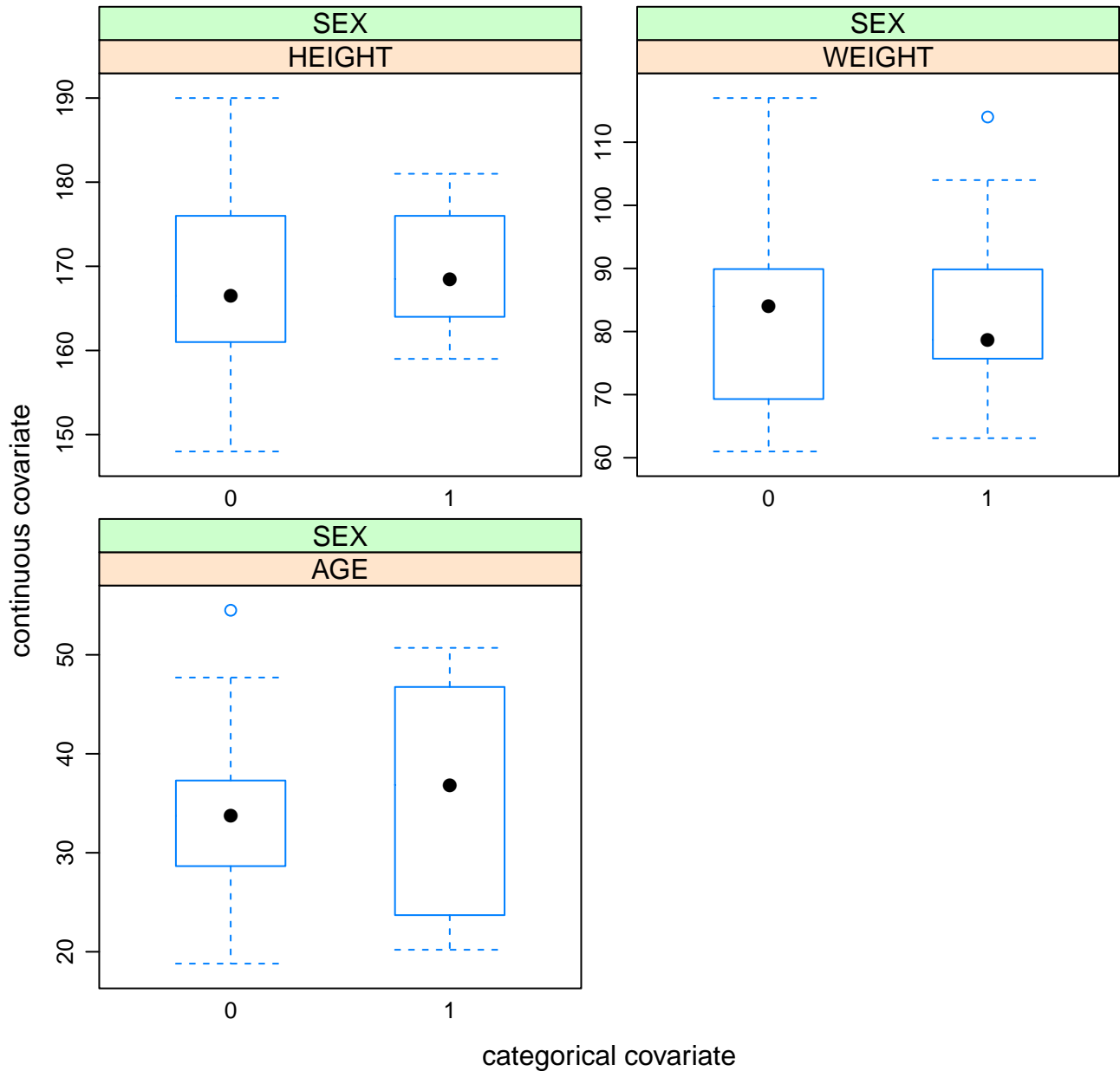
CWRES

WRES

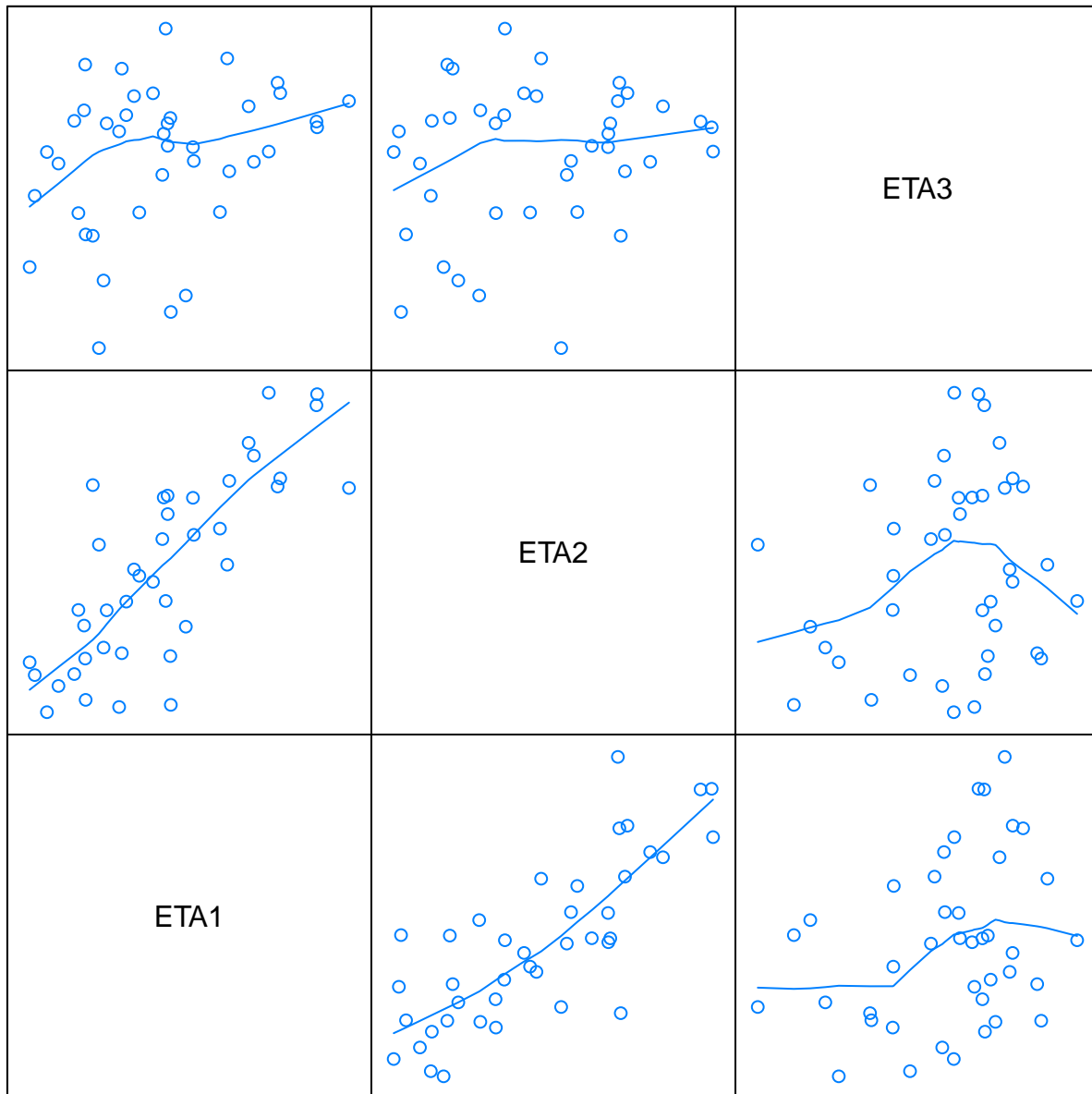**Model 1004 Boxplots of Residuals**
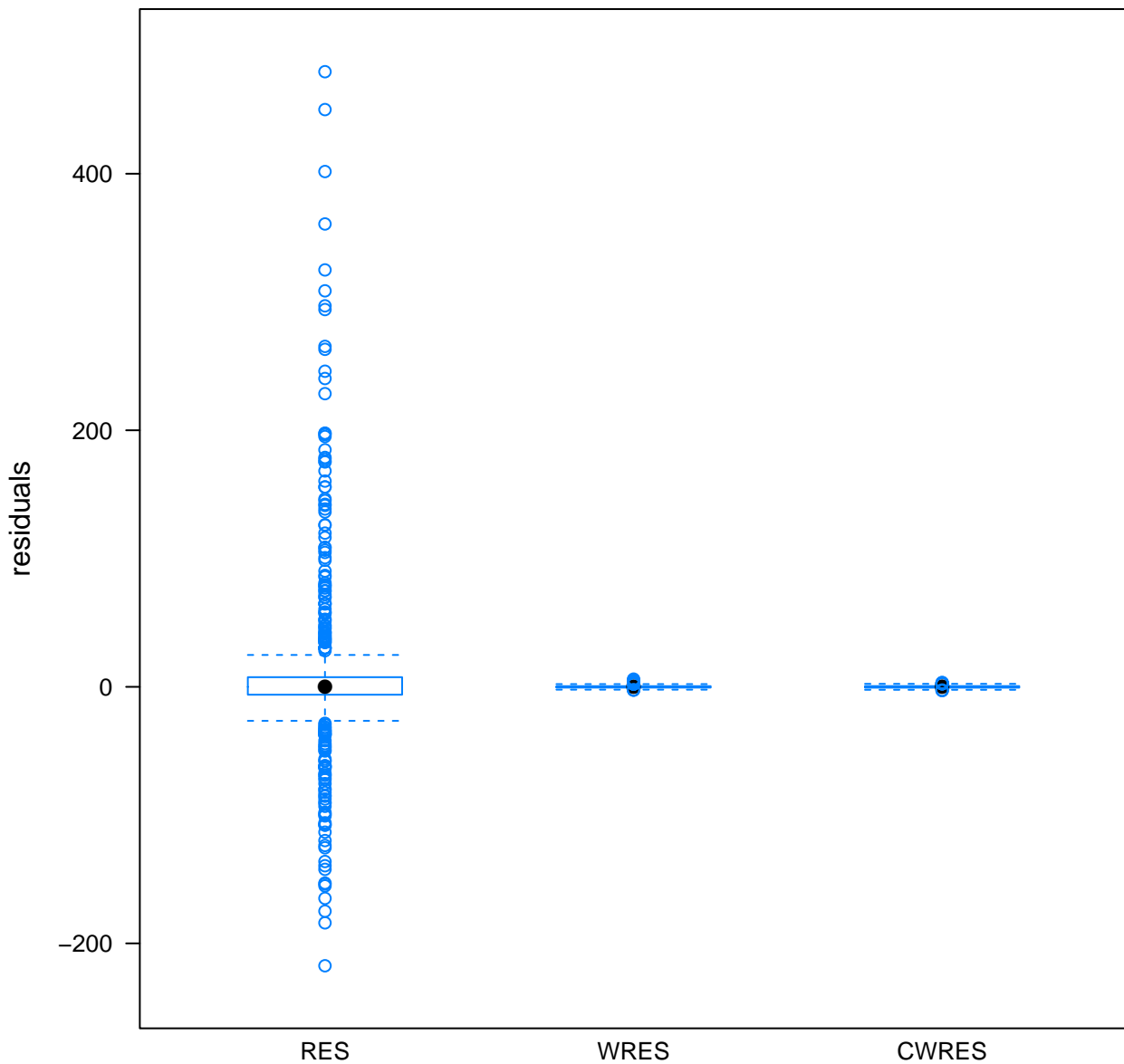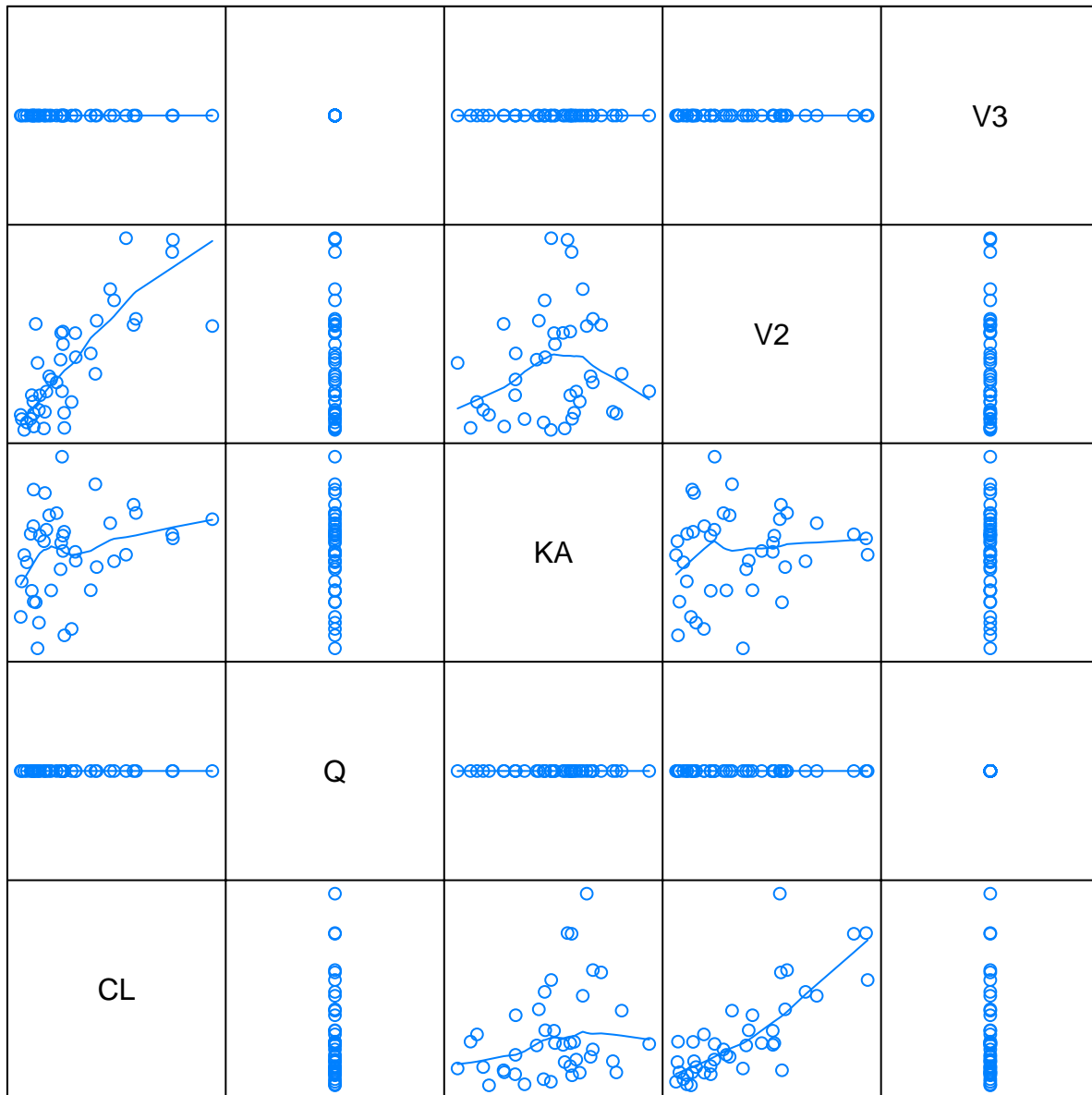
Covariate Scatterplots
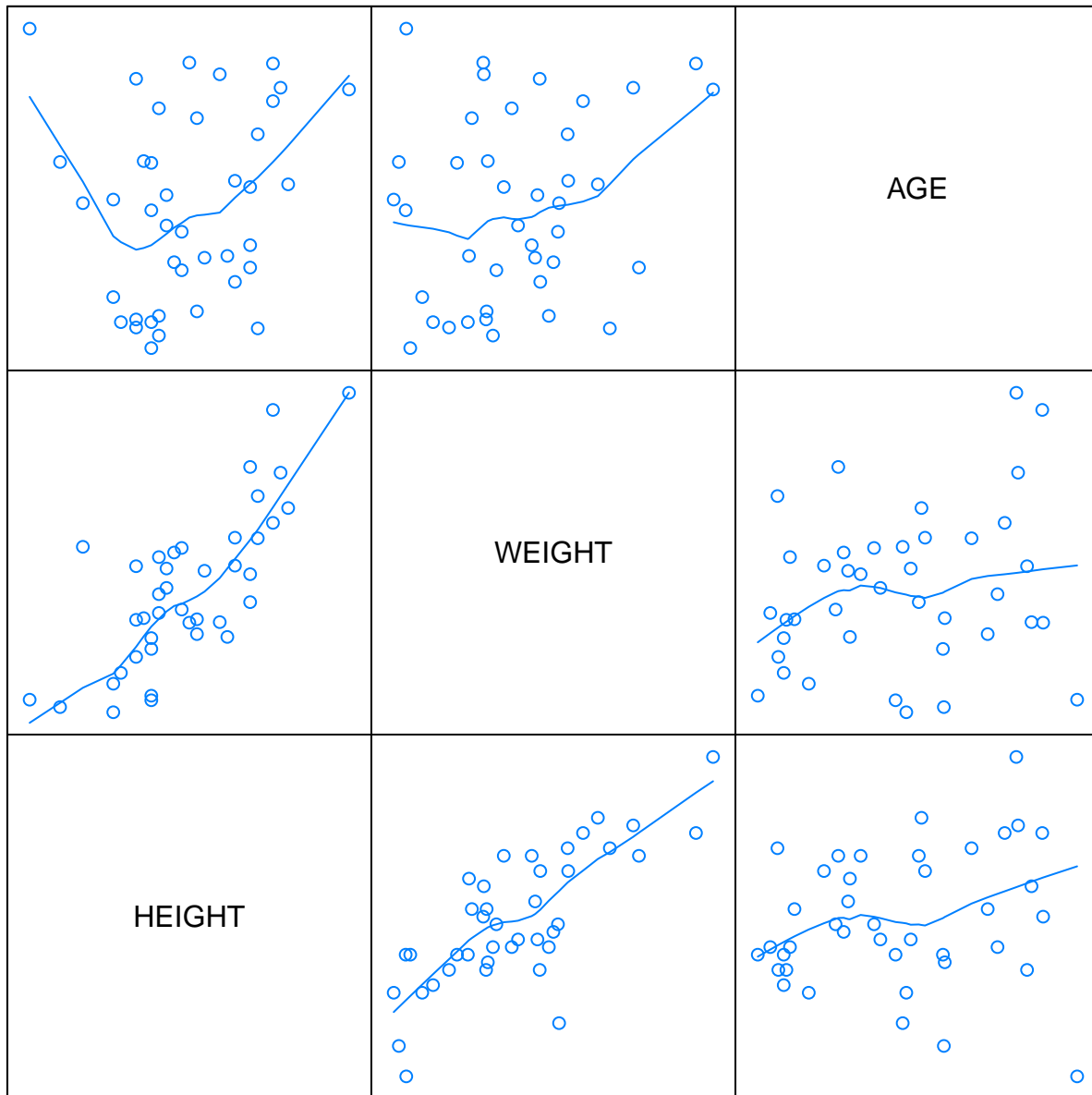
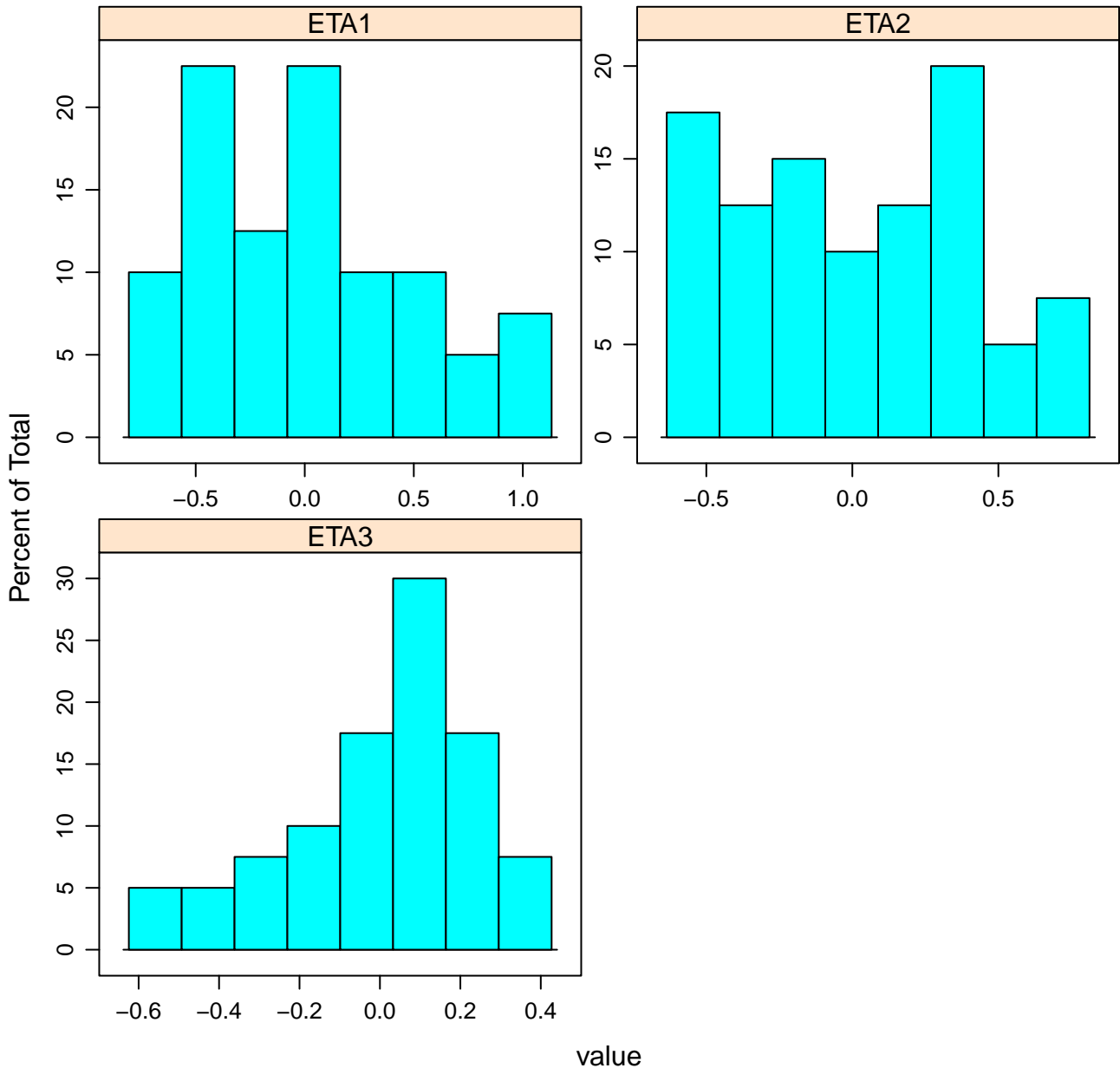**Continuous Covariates vs. Categorical Covariates**
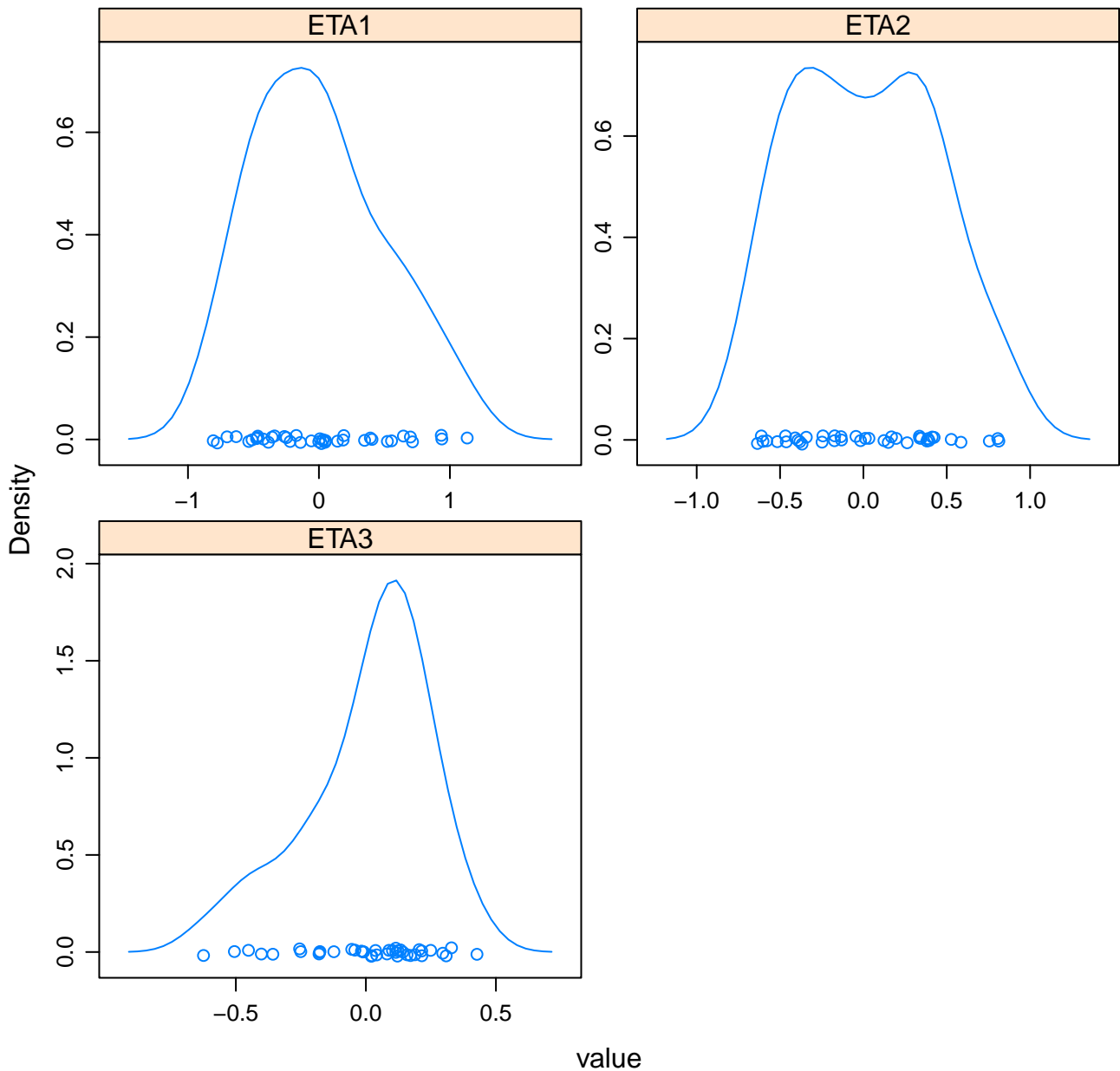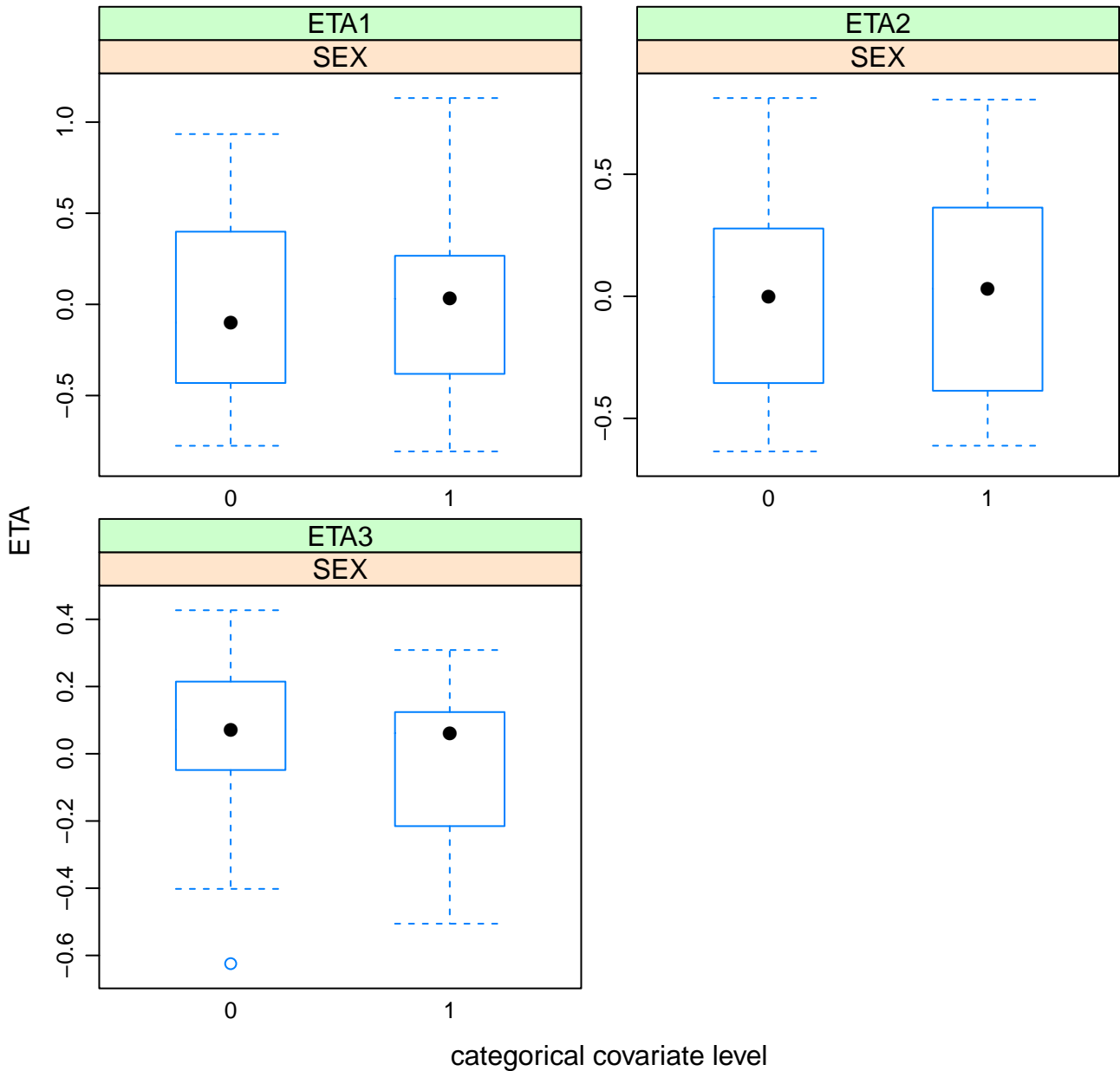
ETA Scatterplots

Parameter Scatterplots
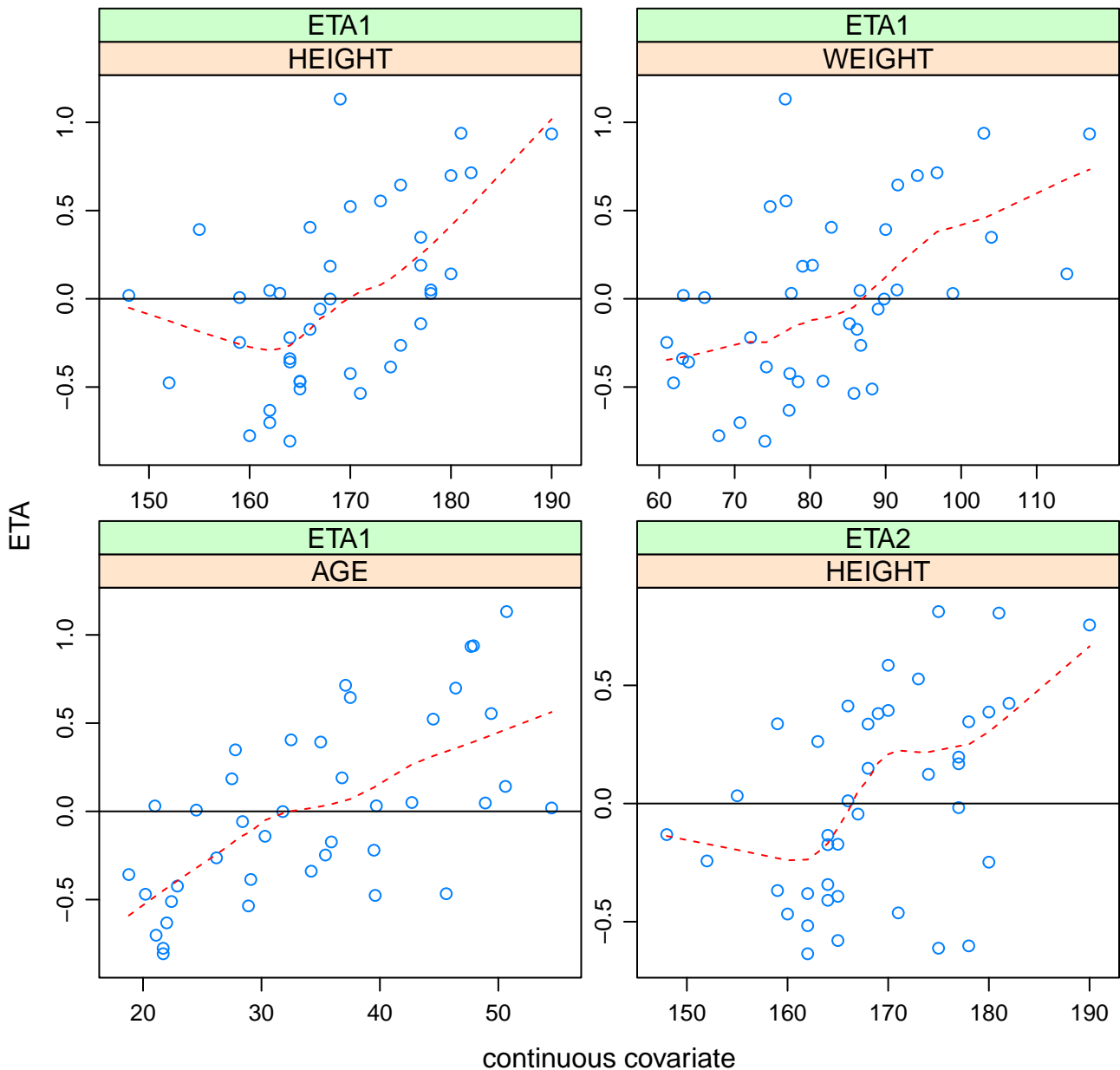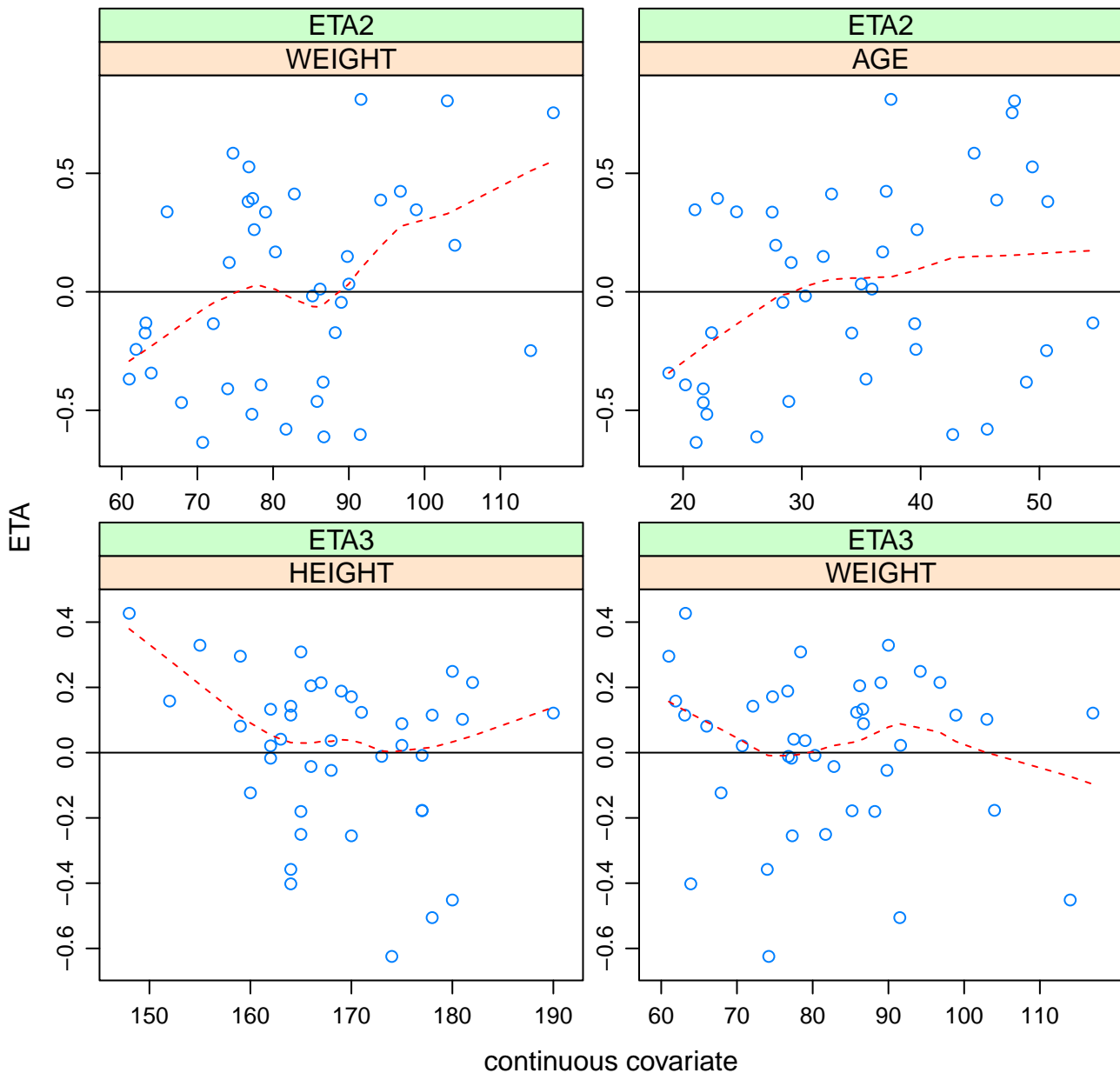
Histograms of Etas

Density of Etas

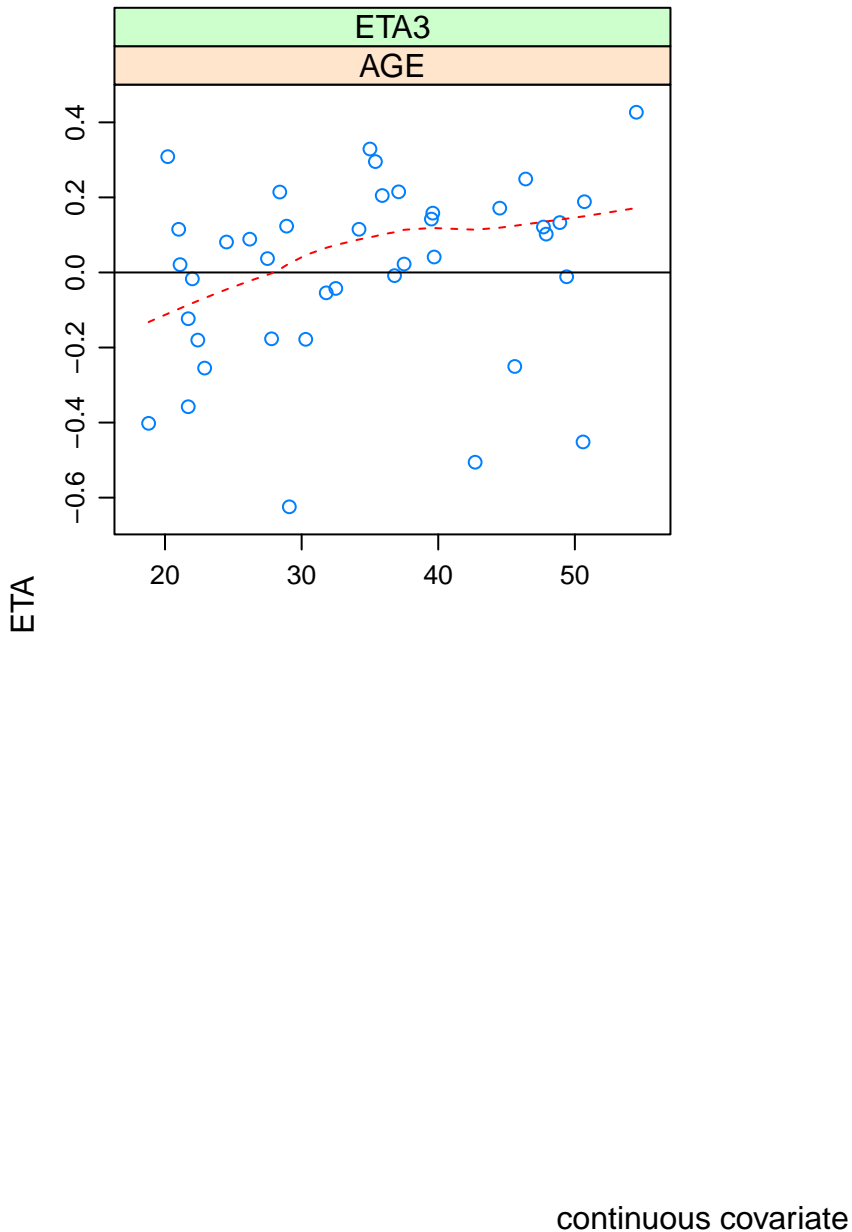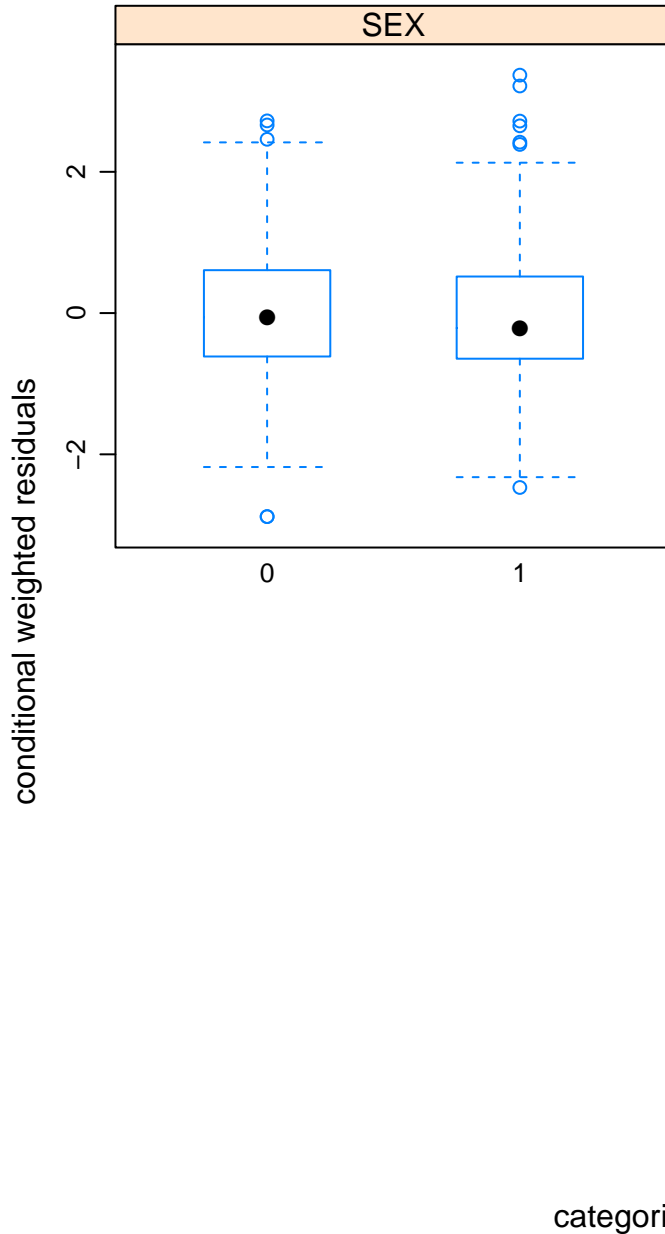**Boxplots of Etas by Categorical Covariate**

Etas vs. Continuous Covariates

Etas vs. Continuous Covariates

Etas vs. Continuous Covariates

CWRES vs. Categorical Covariates
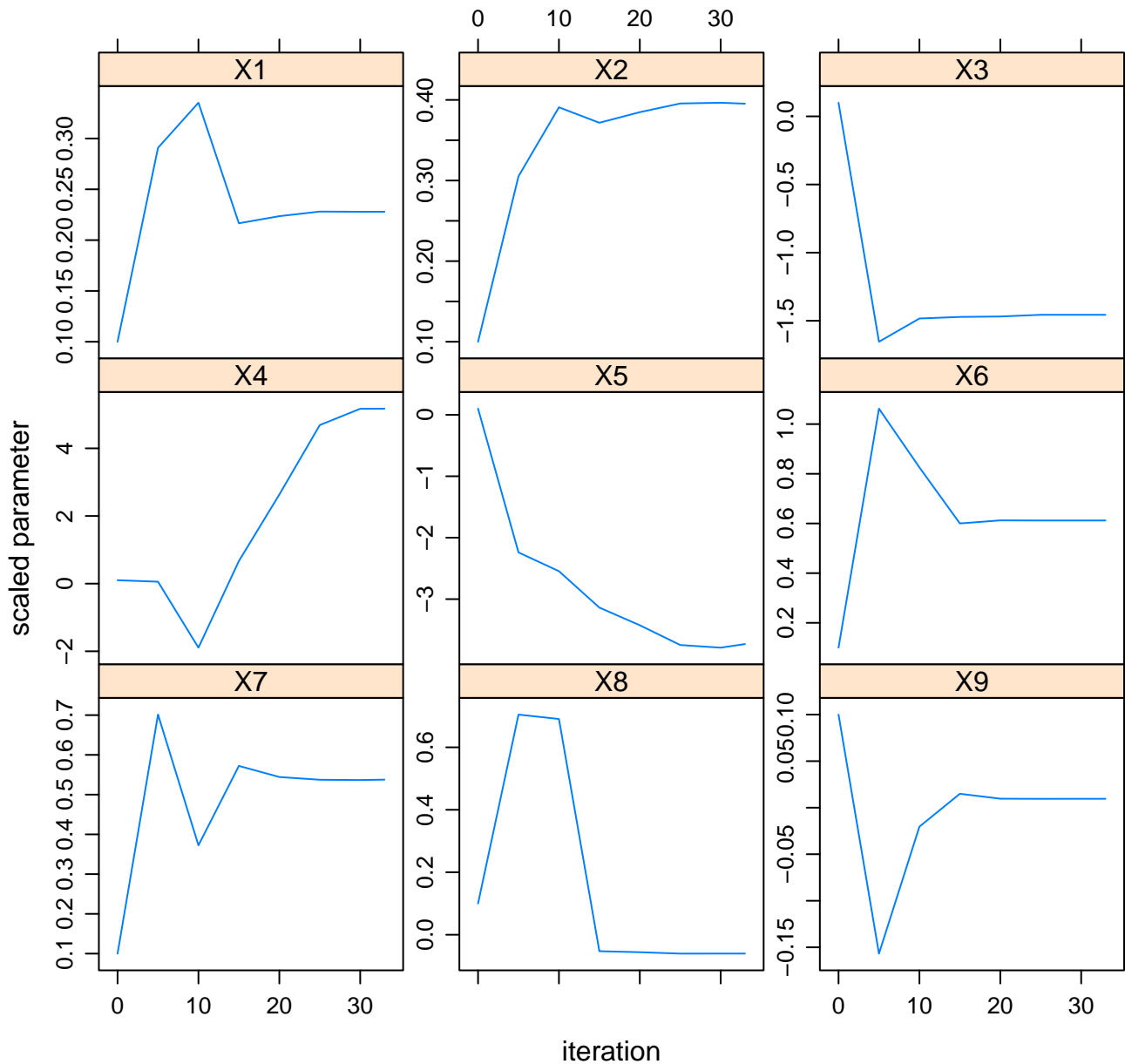
SEX

conditional weighted residuals

categorical Covariate

CWRES vs. Continuous Covariates
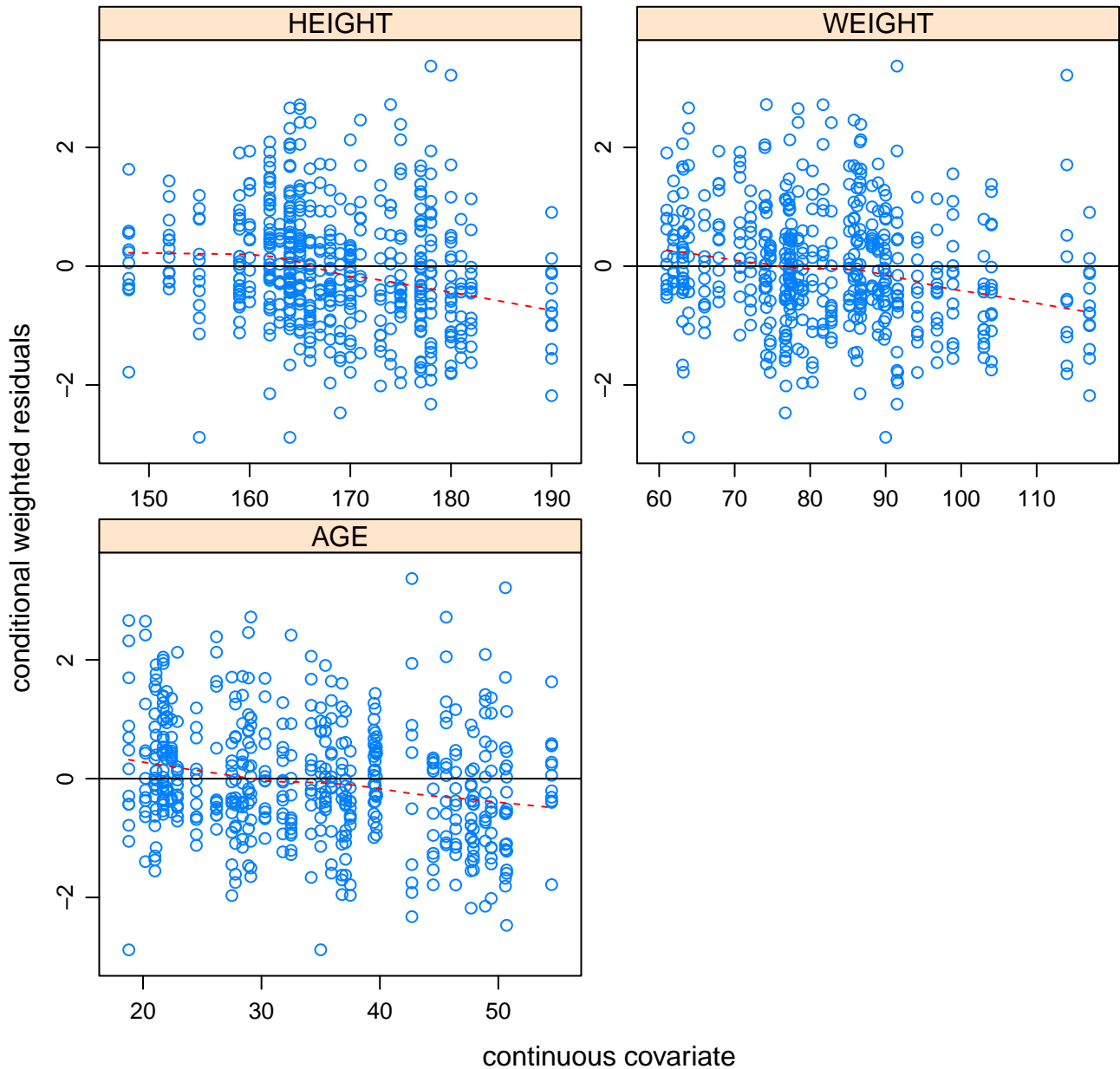
Model 1004 parameter search

Model 1004 gradient search