Posterior Predictive Check
Model−predicted lines should resemble observed data line
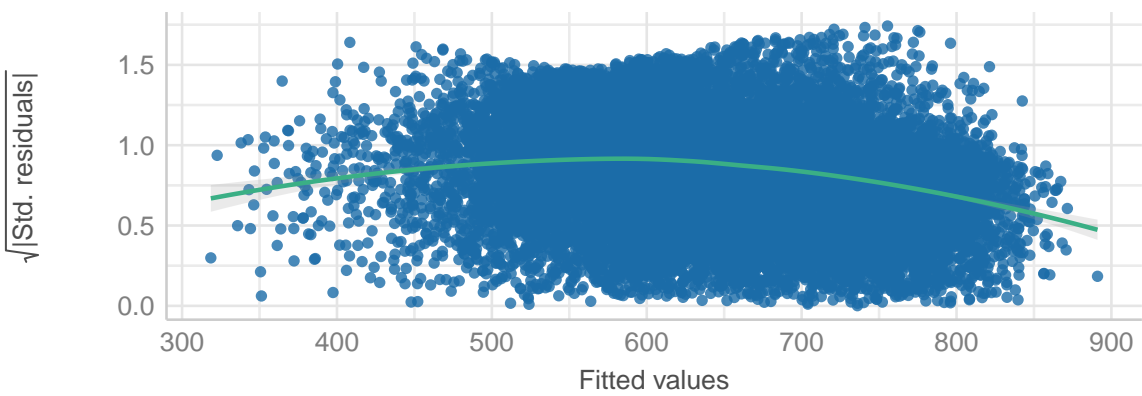
Density vs TFD

— Observed data — Model−predicted data
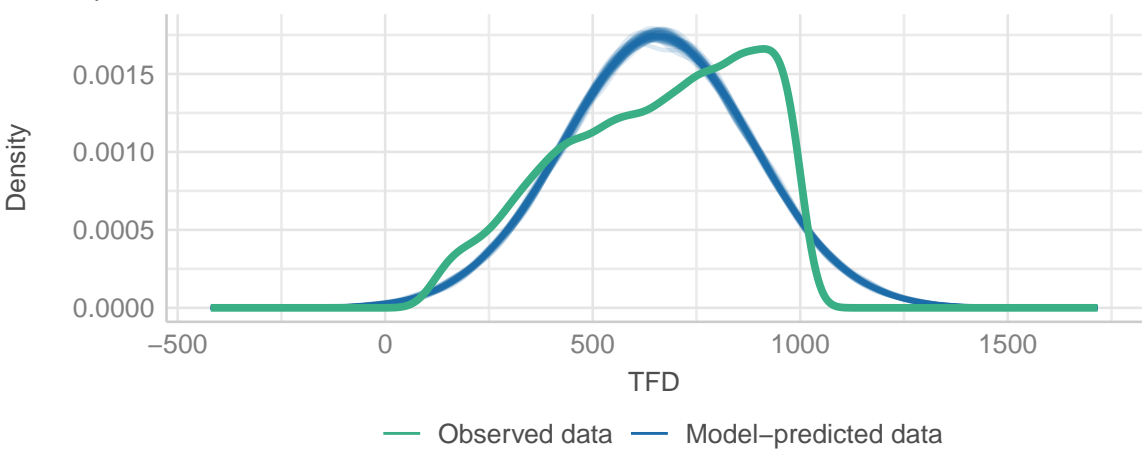
Linearity
Reference line should be flat and horizontal

Residuals vs Fitted values
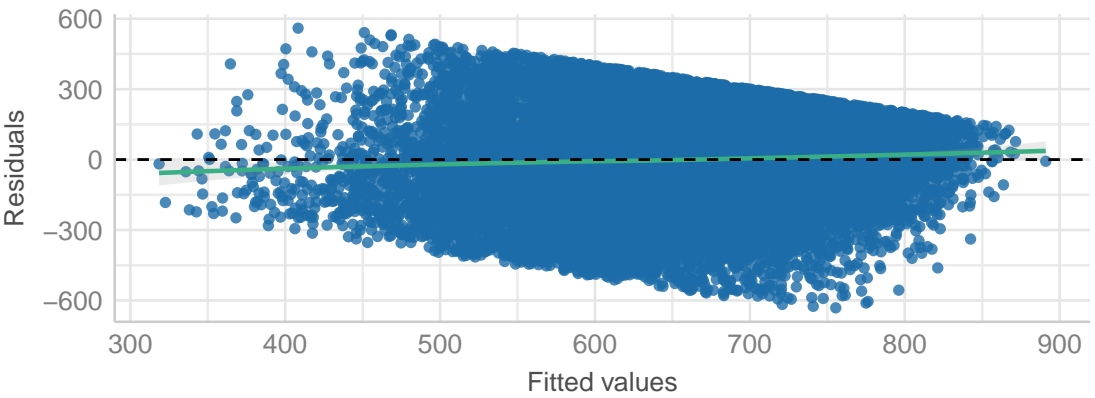
Homogeneity of Variance
Reference line should be flat and horizontal

$\sqrt{|\text{Std. residuals}|}$ vs Fitted values

Influential Observations
Points should be inside the contour lines

Std. Residuals vs Leverage (h_{ii})

18008, 2910, 0.5, 0.5, 18006, 3456, 2907
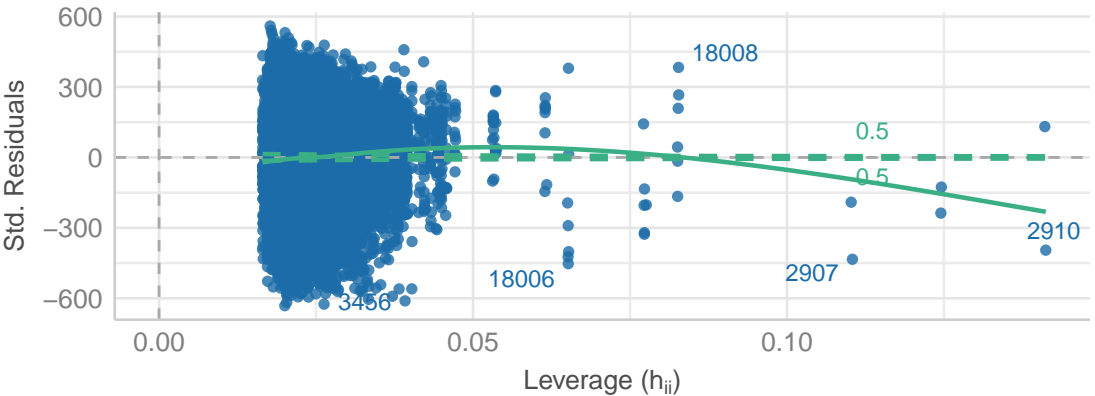
Collinearity
High collinearity (VIF) may inflate parameter uncertainty

Variance Inflation Factor (VIF, log−scaled)

Condition Relationship Sexual_dimorphism Relationship:Sexual_dimorphism

● Low (< 5)
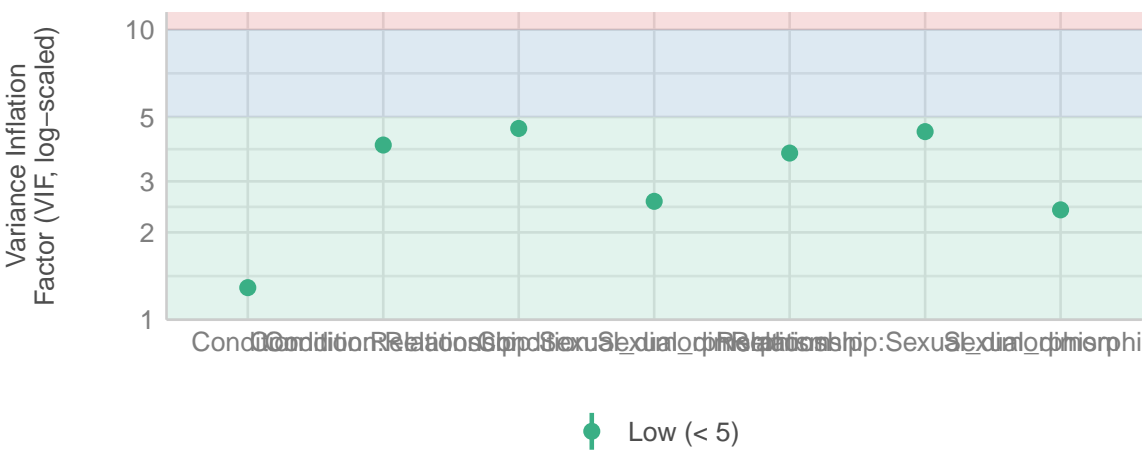
Normality of Residuals
Dots should fall along the line

Sample Quantile Deviations vs Standard Normal Distribution Quantiles
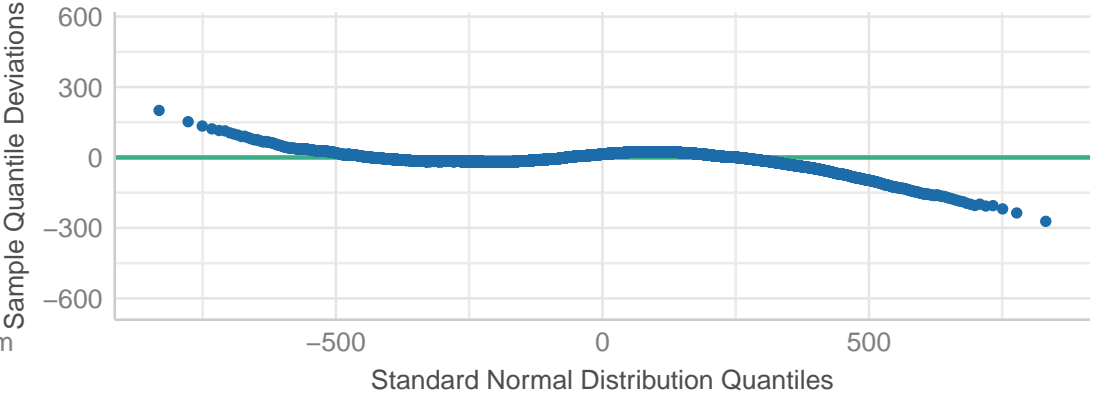
Normality of Random Effects (ID)
Dots should be plotted along the line

(Intercept) | Sexual_dimorphismFeminized

RE Quantiles vs Theoretical Quantiles
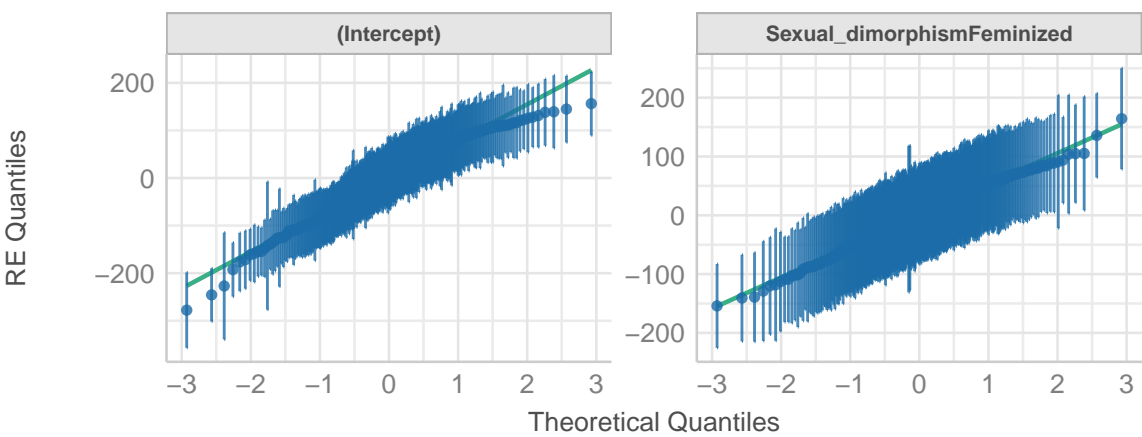
Normality of Random Effects (Stimulus)
Dots should be plotted along the line

RE Quantiles vs Theoretical Quantiles