Posterior Predictive Check
Model−predicted lines should resemble observed data line
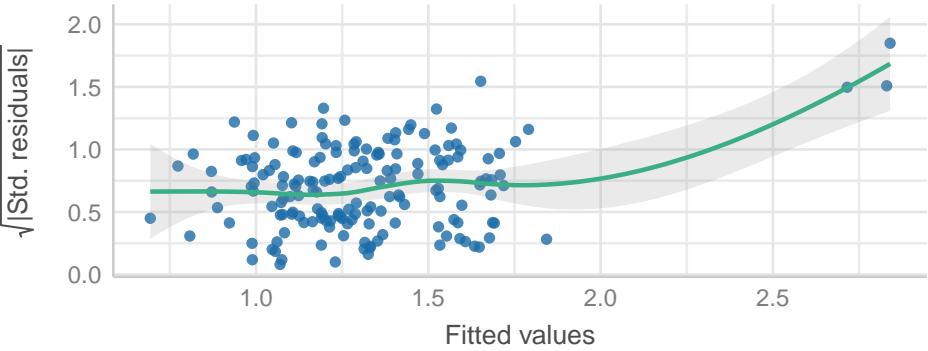
— Observed data   — Model−predicted data
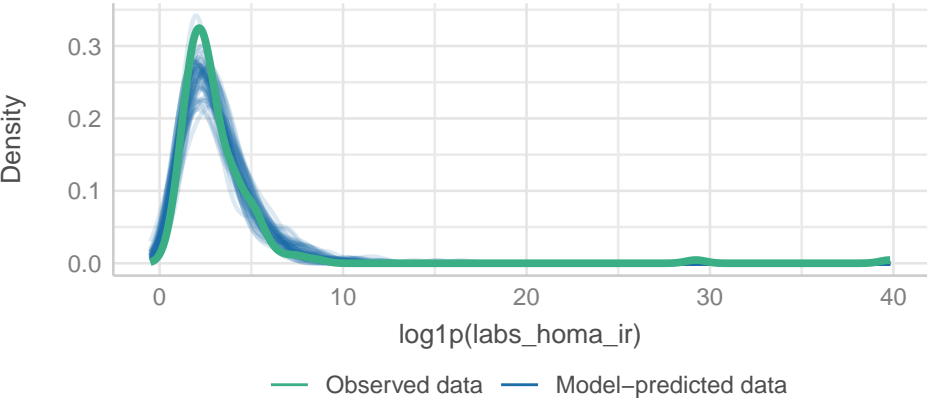
Linearity
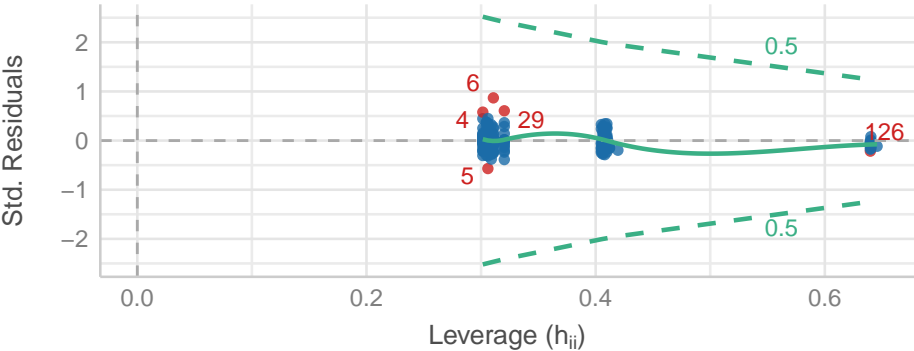Reference line should be flat and horizontal
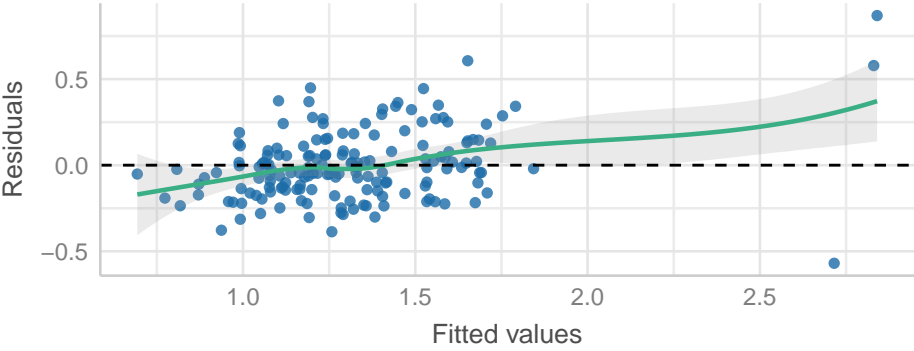
Homogeneity of Variance
Reference line should be flat and horizontal

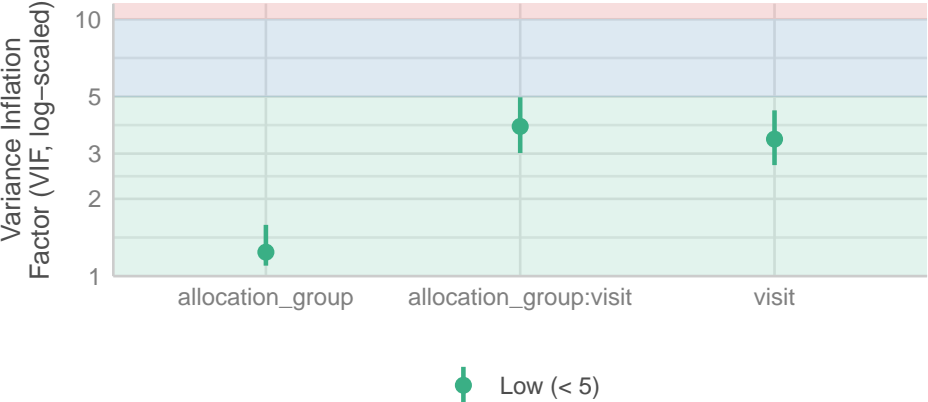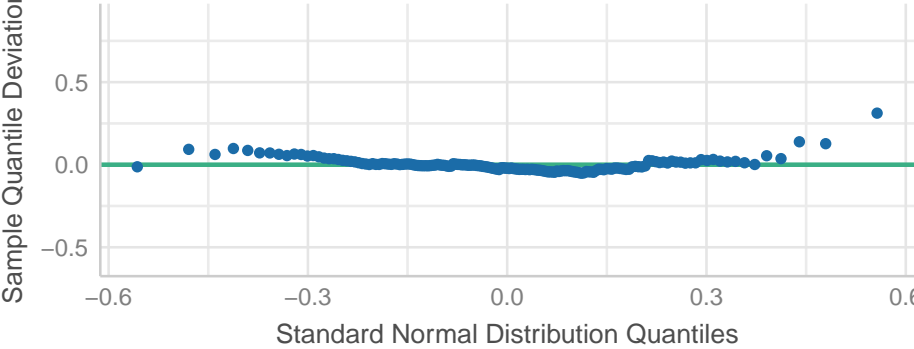## Influential Observations
Points should be inside the contour lines

Collinearity
High collinearity (VIF) may inflate parameter uncertainty

Low (< 5)

Normality of Residuals
Dots should fall along the line

Normality of Random Effects (record_id)
Dots should be plotted along the line