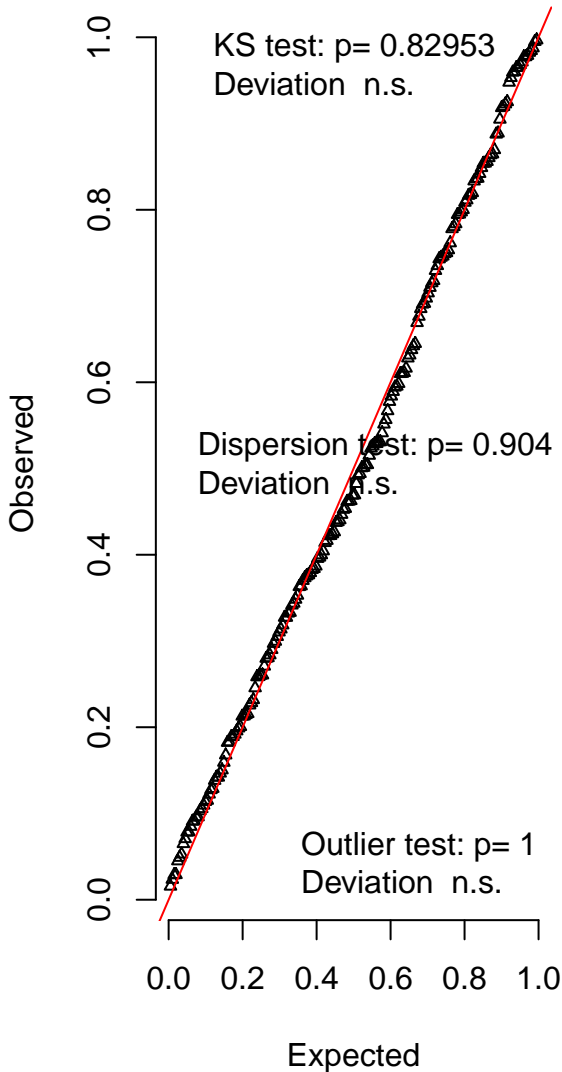
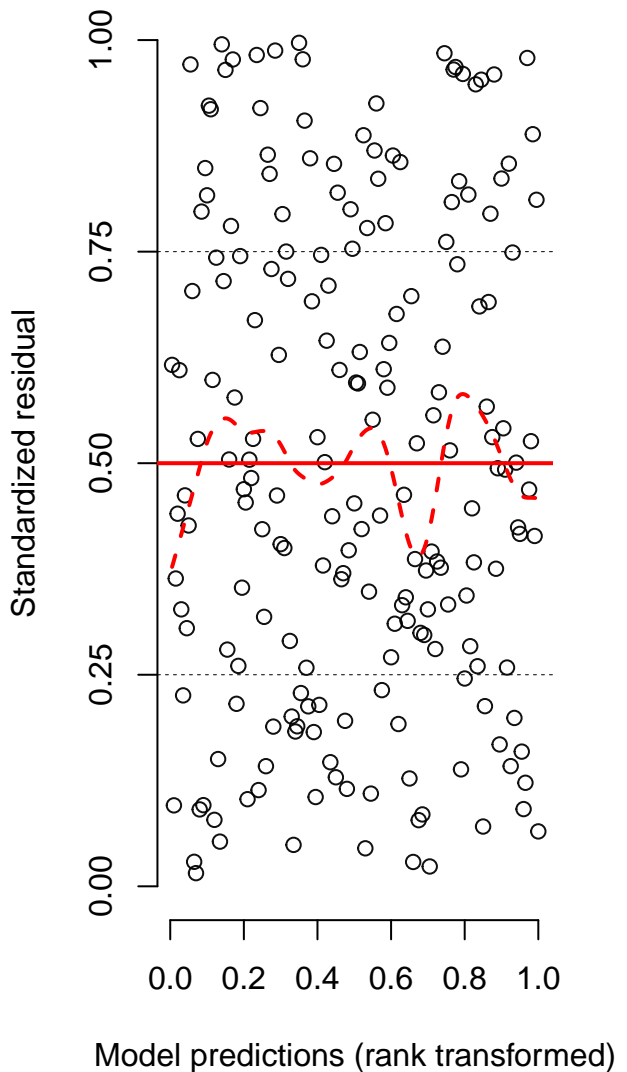


DHARMA residual diagnostics

QQ plot residuals

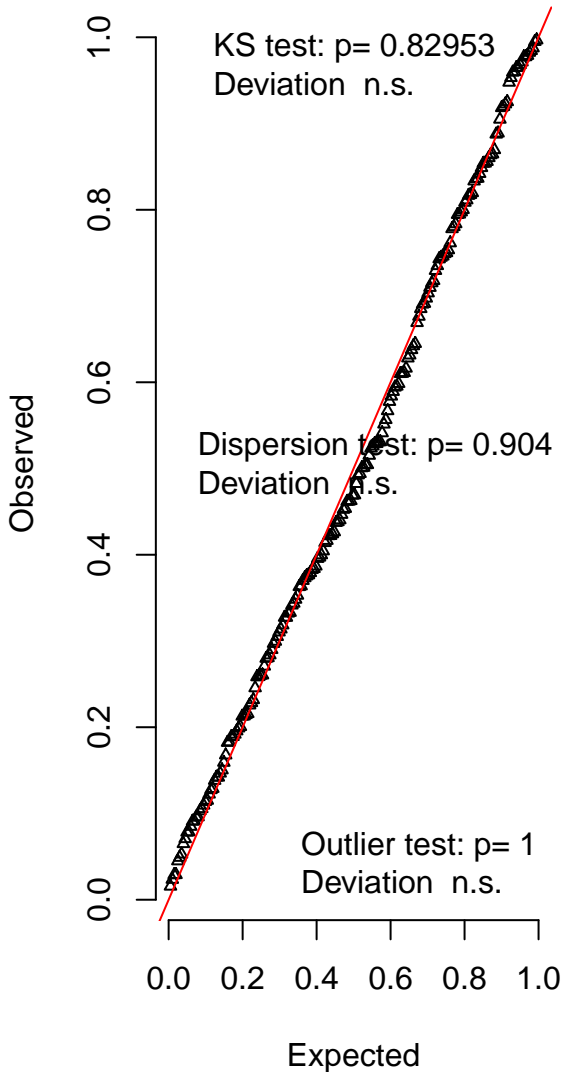


Residual vs. predicted

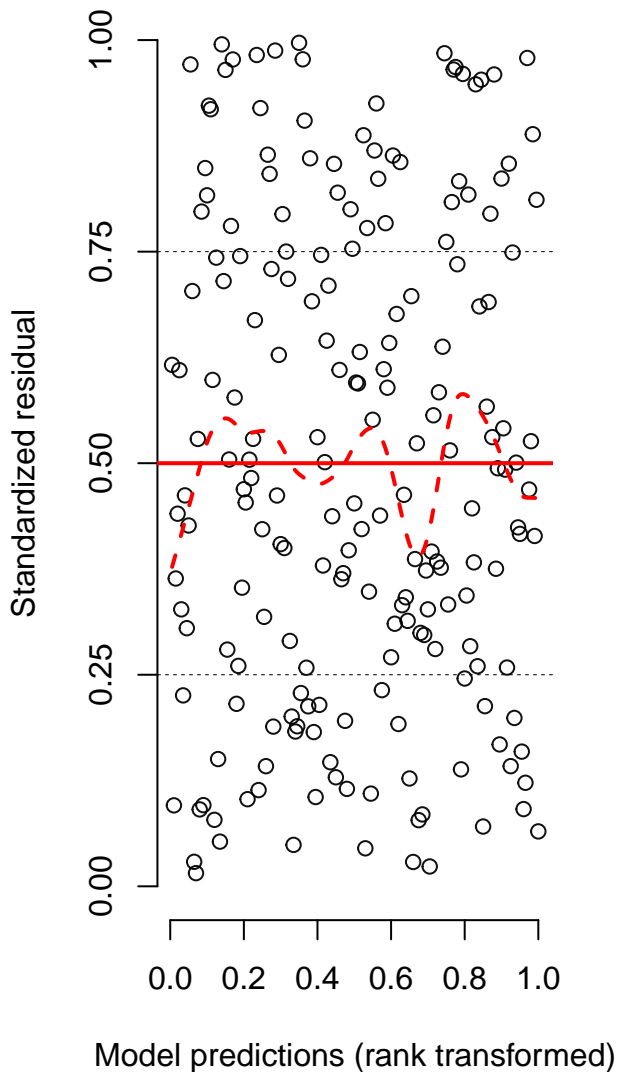


DHARMA residual diagnostics

QQ plot residuals

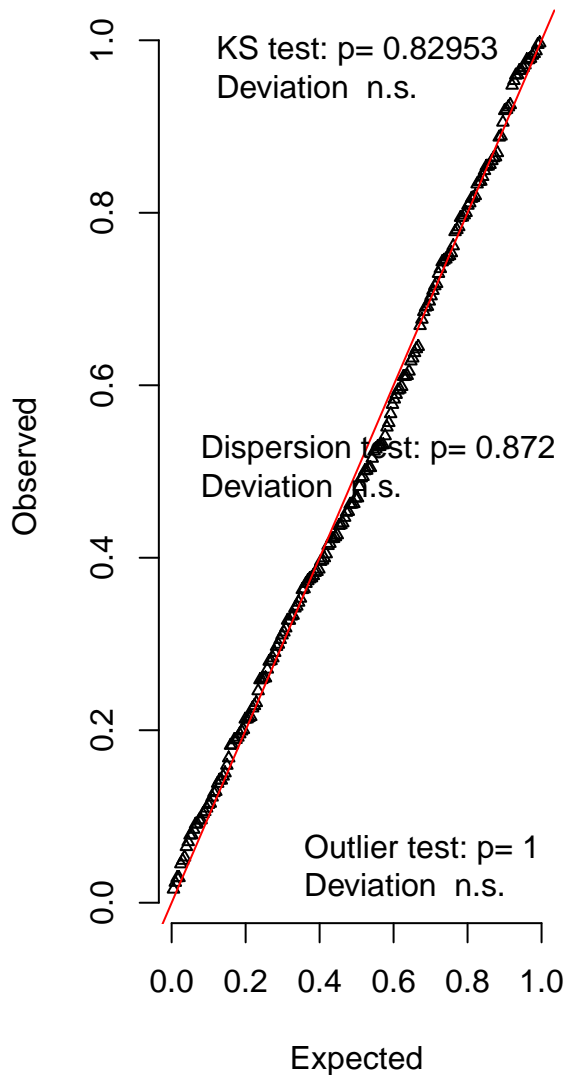


Residual vs. predicted

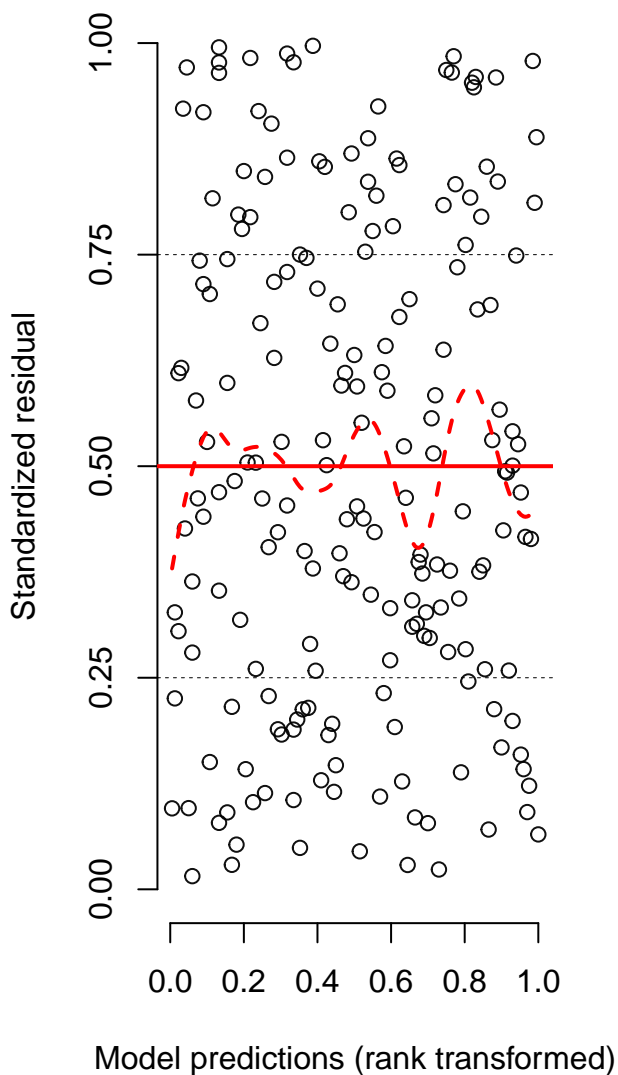


DHARMA residual diagnostics

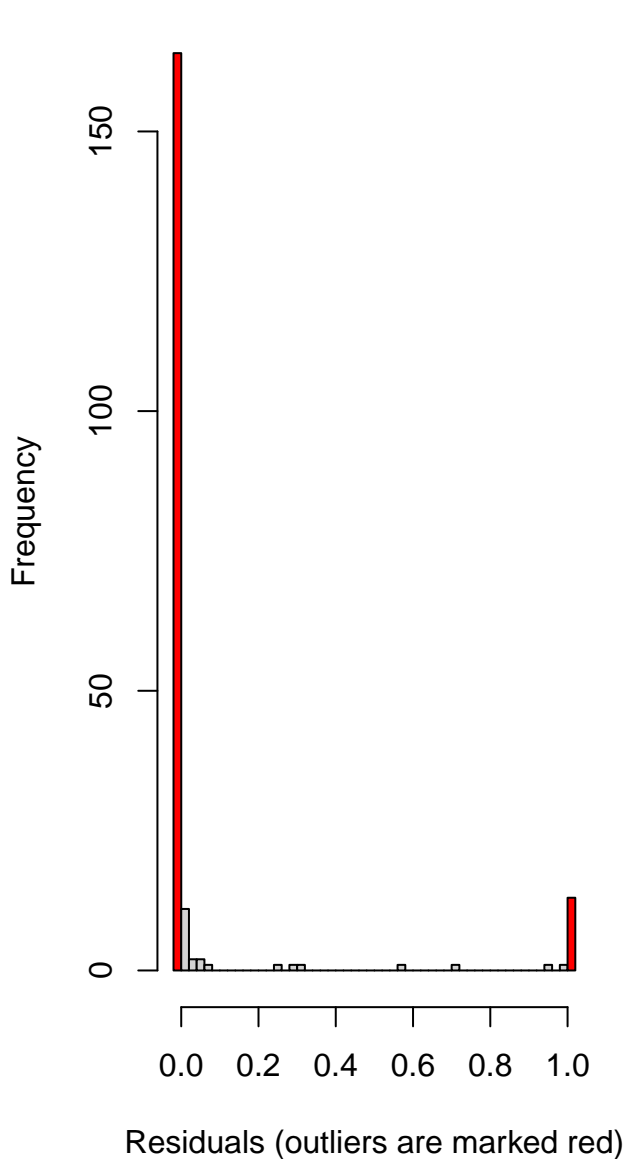
QQ plot residuals



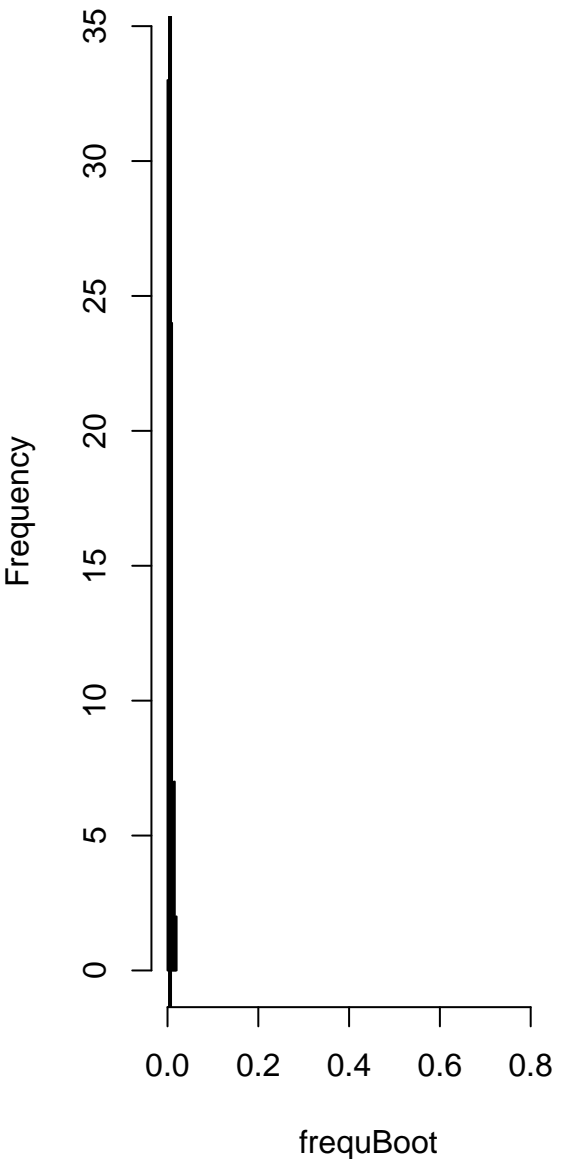
Residual vs. predicted



Outlier test significant

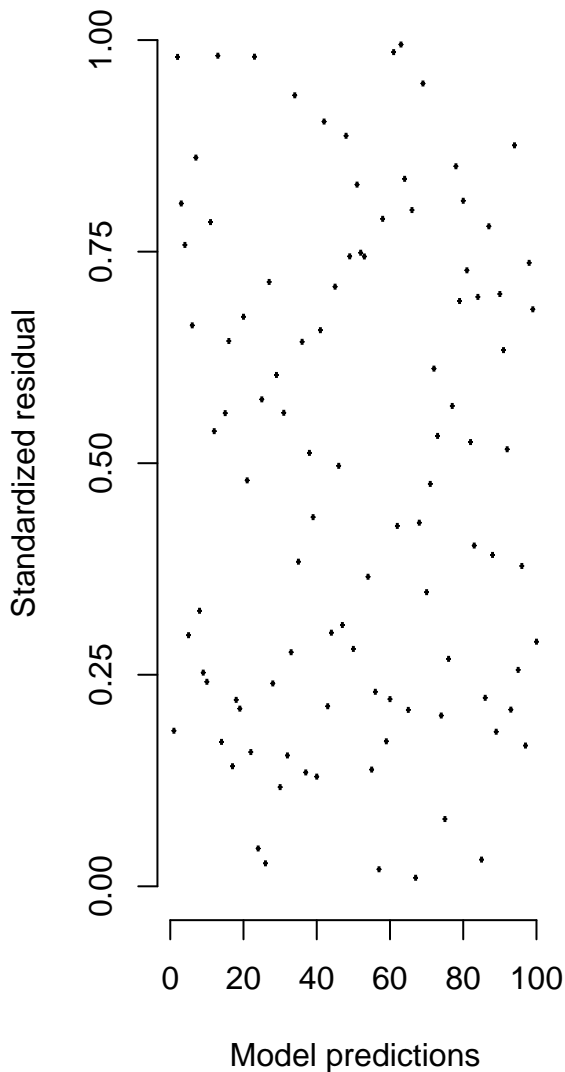
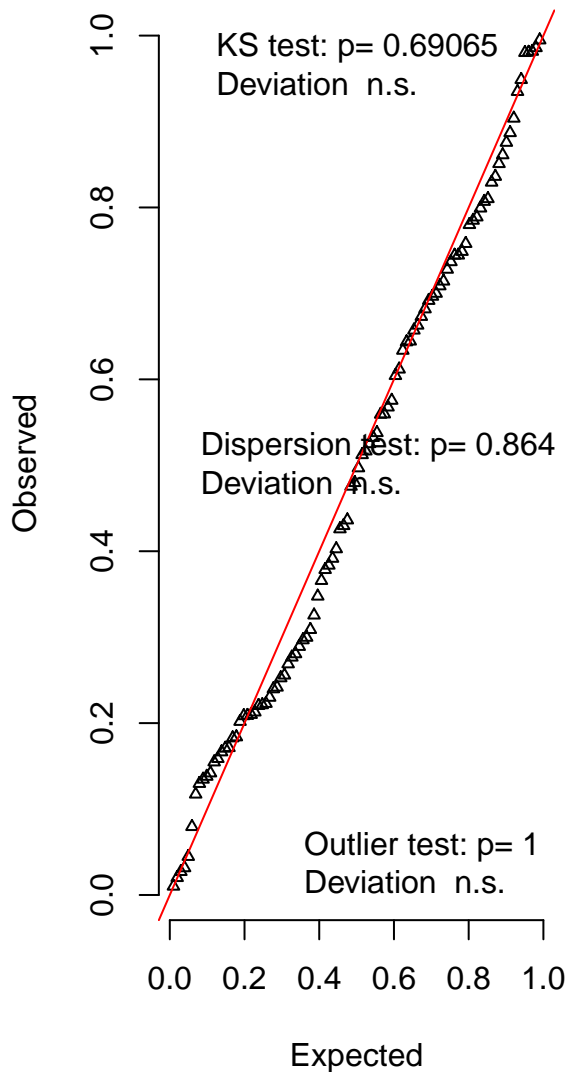


Histogram of frequBoot



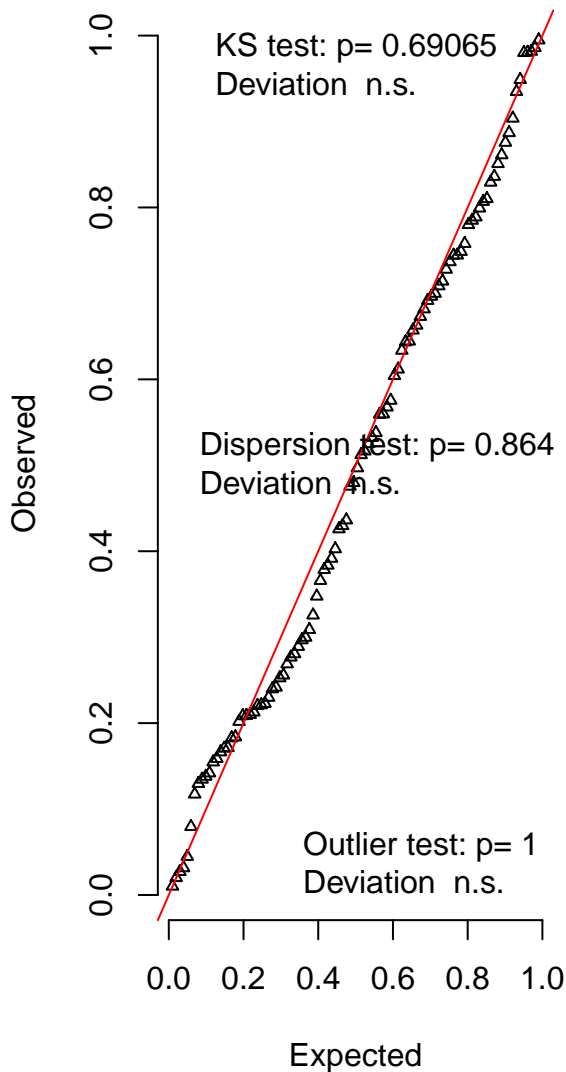
DHARMA residual diagnostics

QQ plot residuals

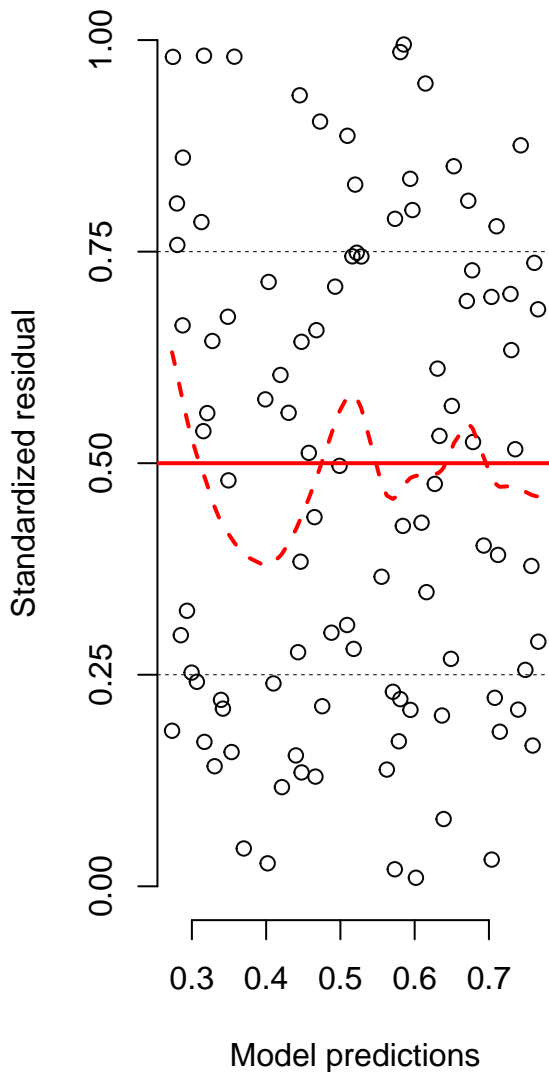


DHARMA residual diagnostics

QQ plot residuals

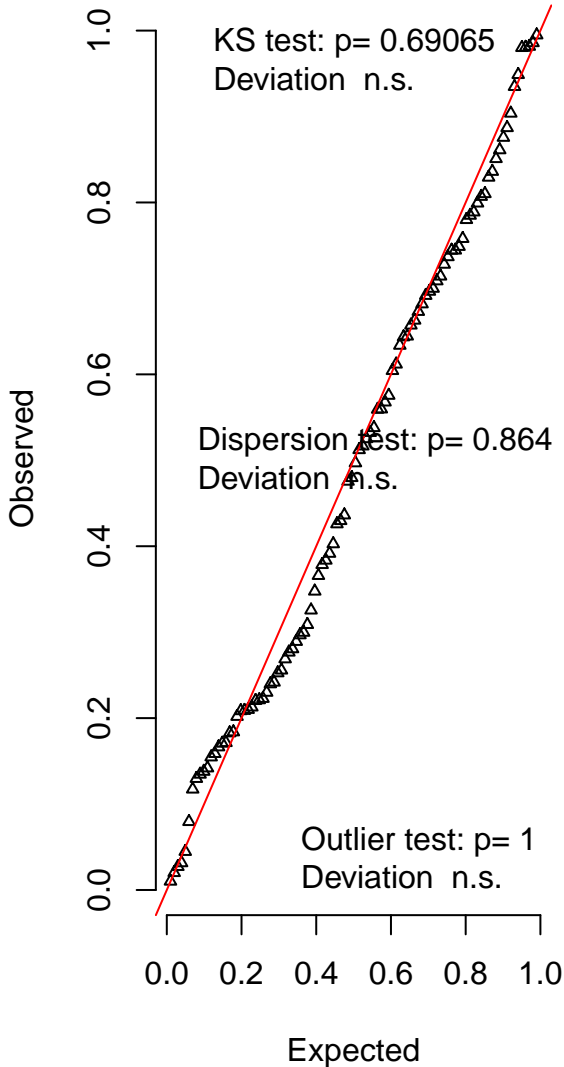


Residual vs. predicted

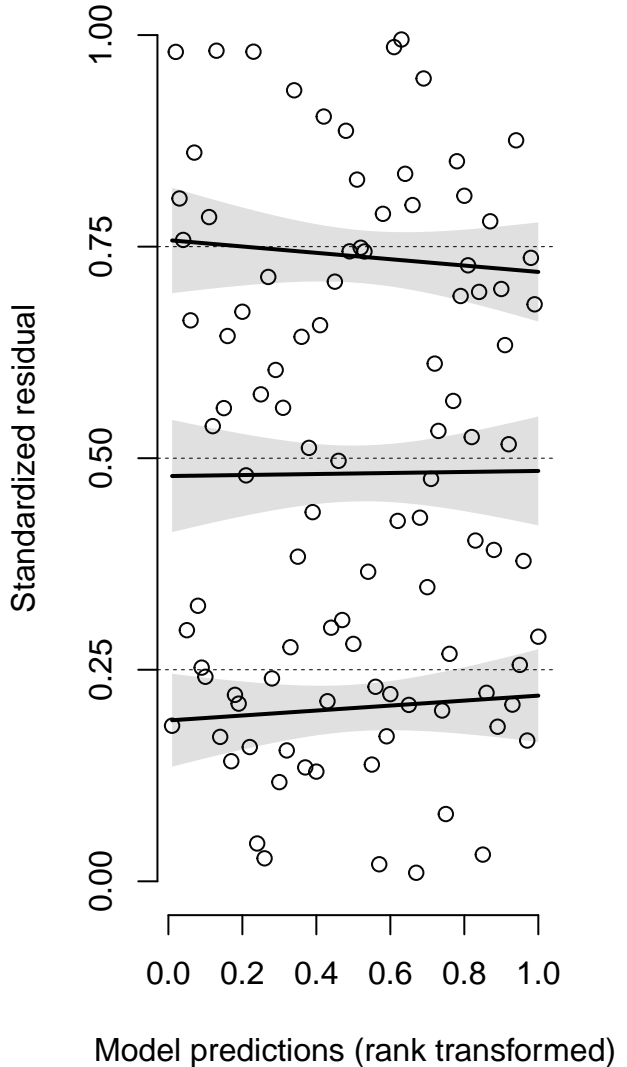


DHARMA residual diagnostics

QQ plot residuals

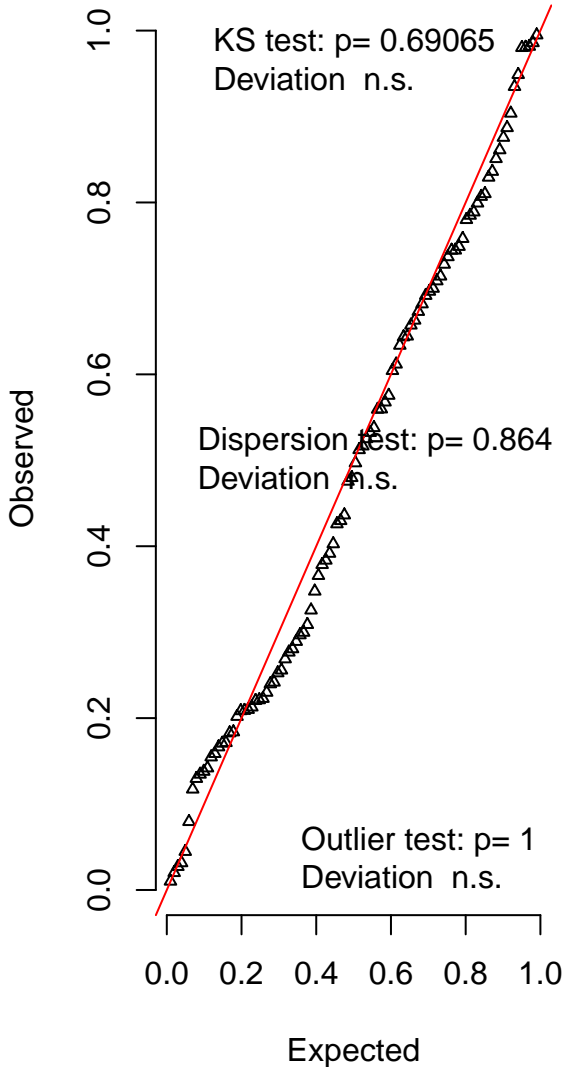


Residual vs. predicted No significant problems detected

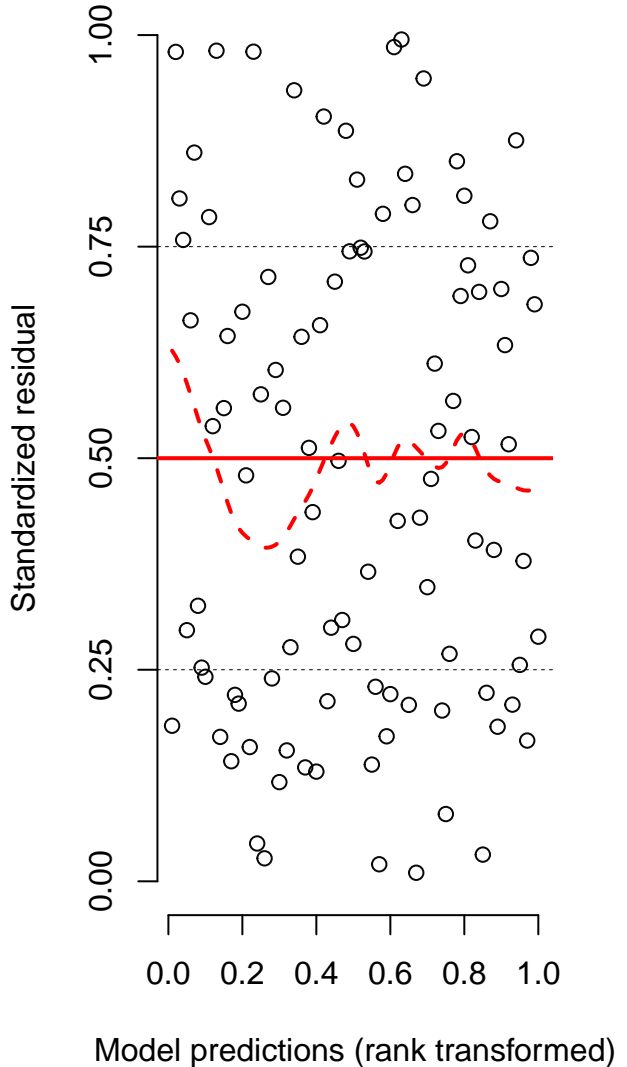


DHARMA residual diagnostics

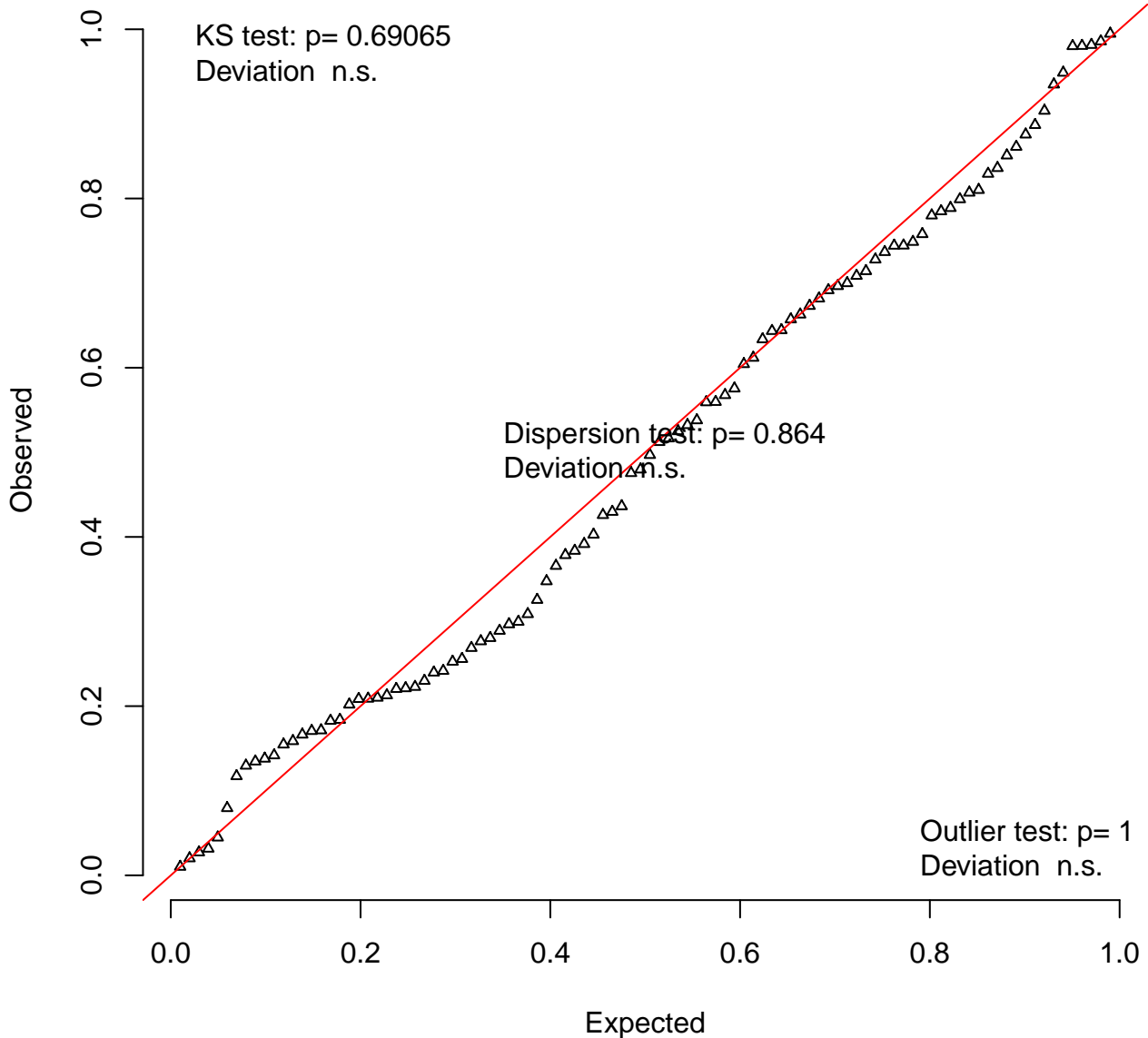
QQ plot residuals



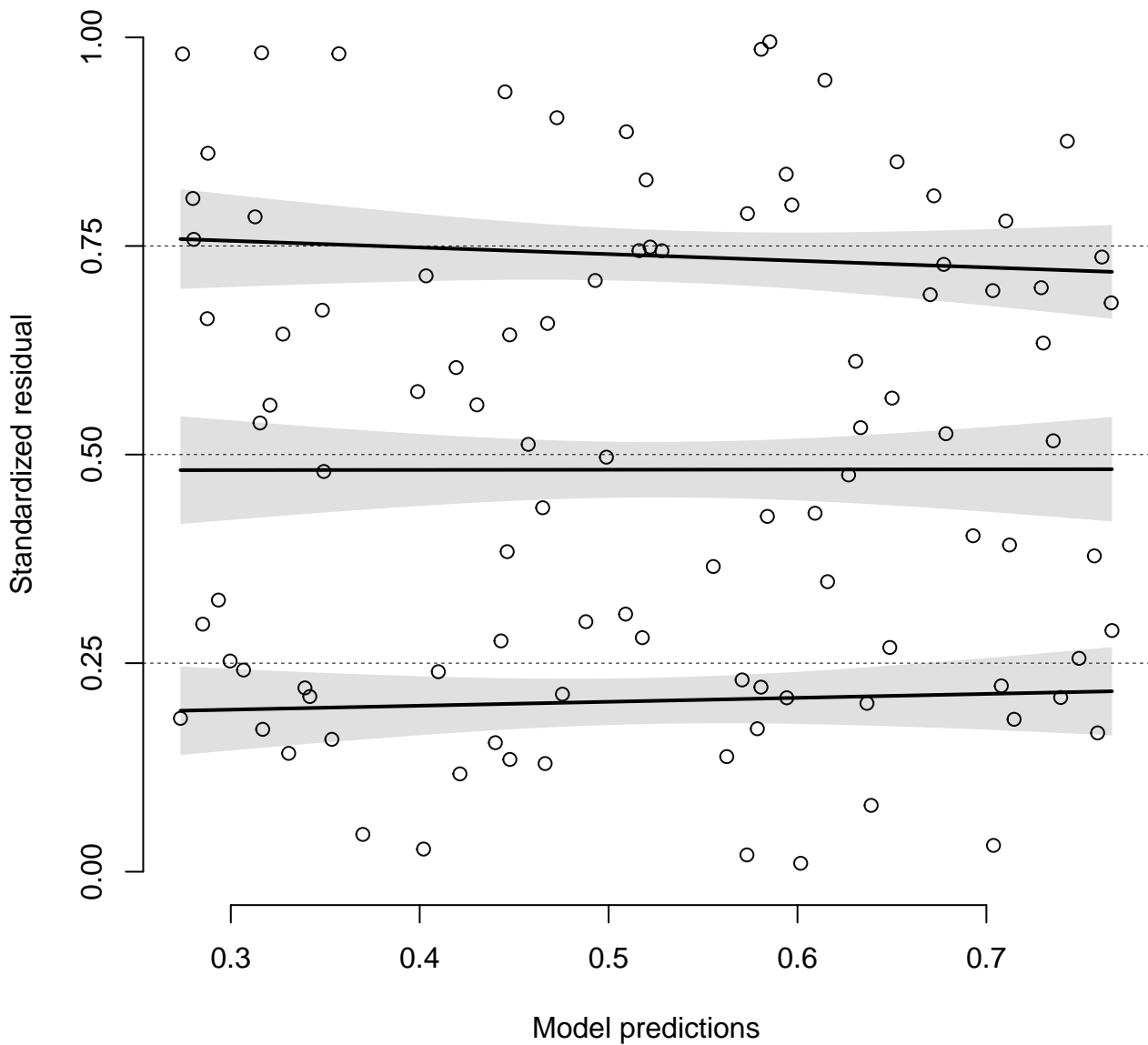
Residual vs. predicted



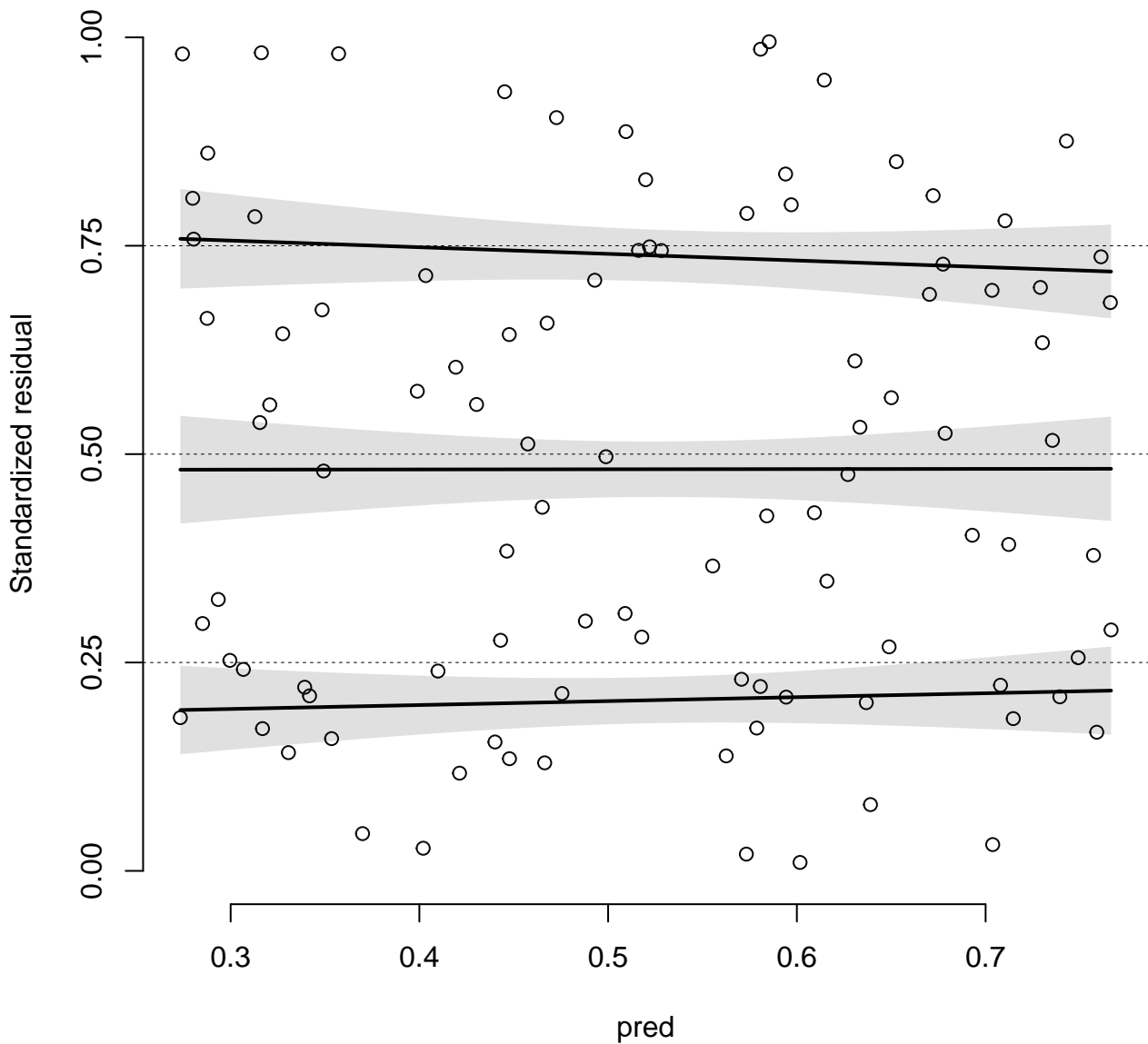
QQ plot residuals



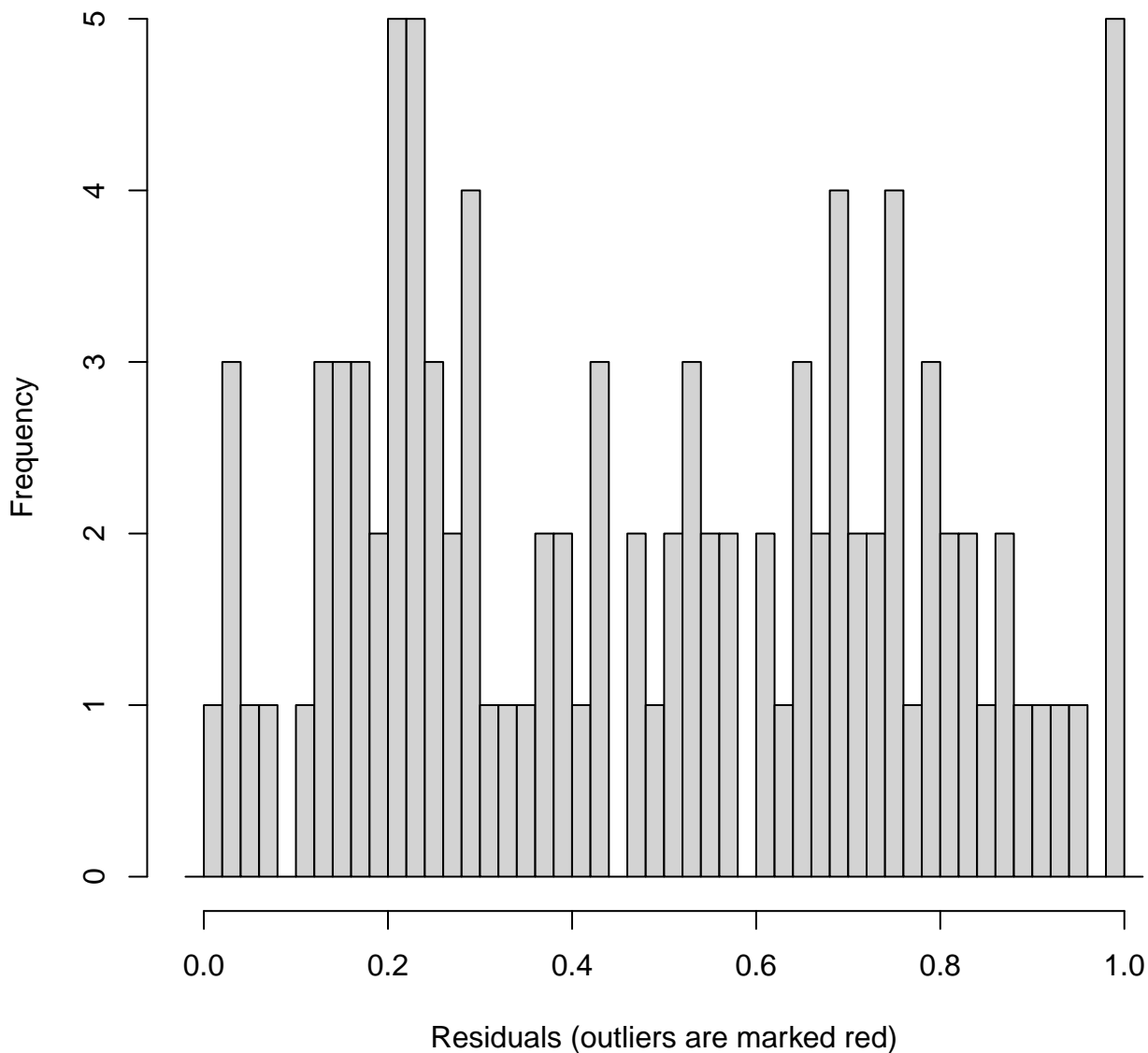
Residual vs. predicted
No significant problems detected



Residual vs. predicted
No significant problems detected

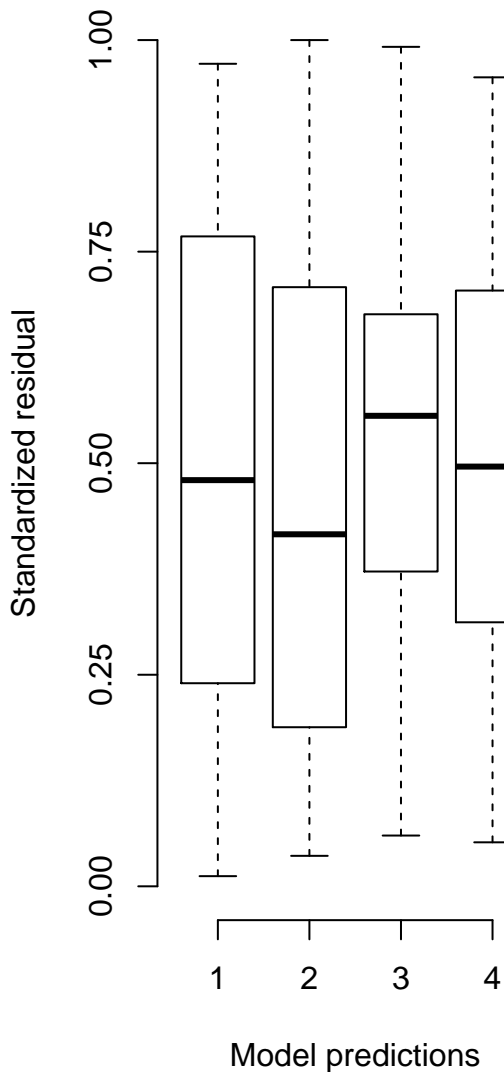
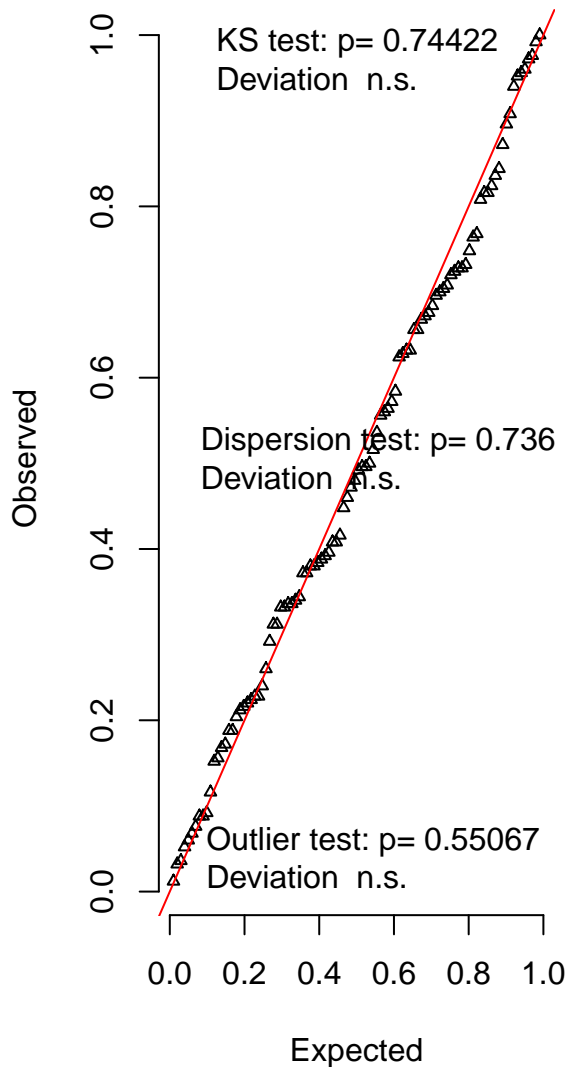


Hist of DHARMA residuals



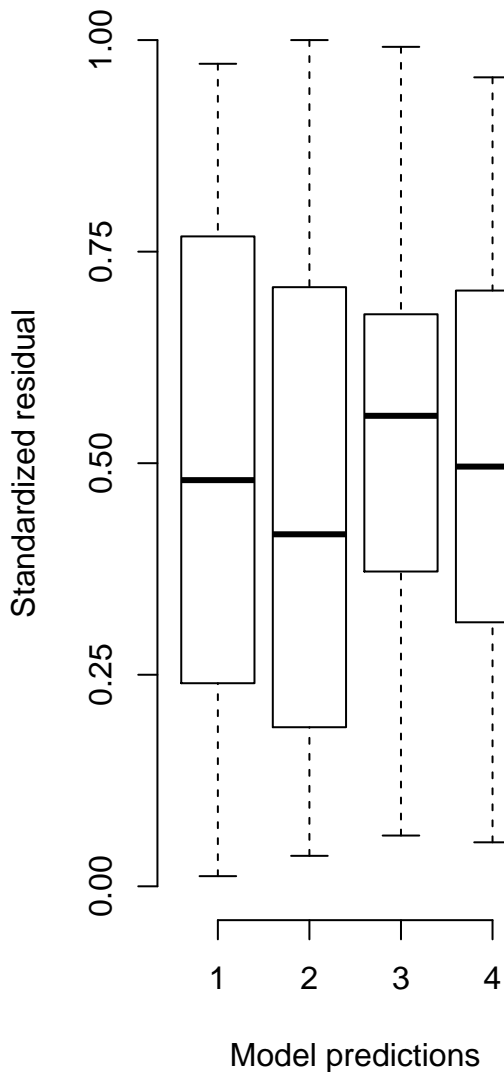
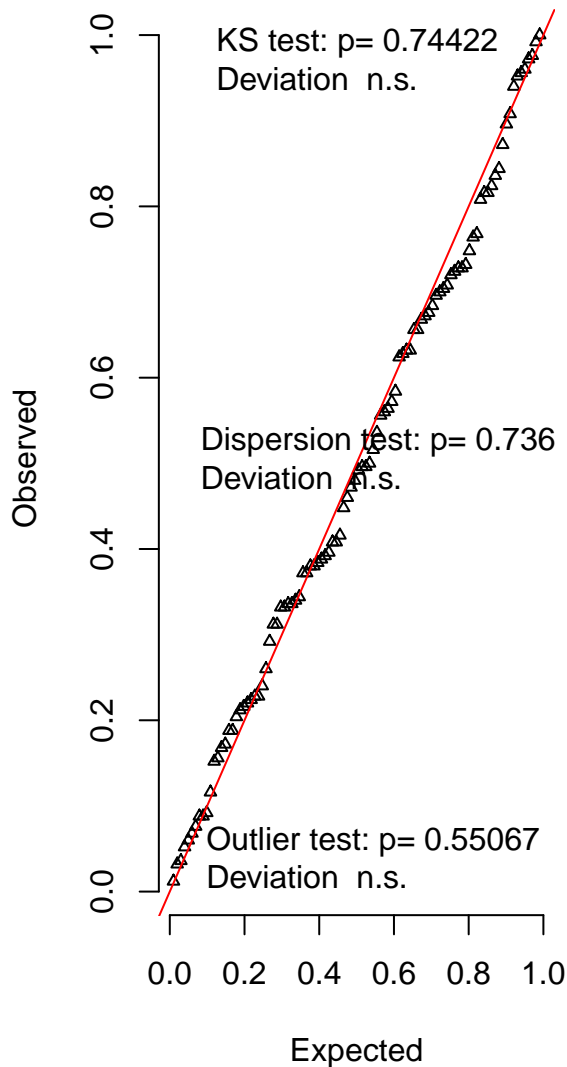
DHARMA residual diagnostics

QQ plot residuals



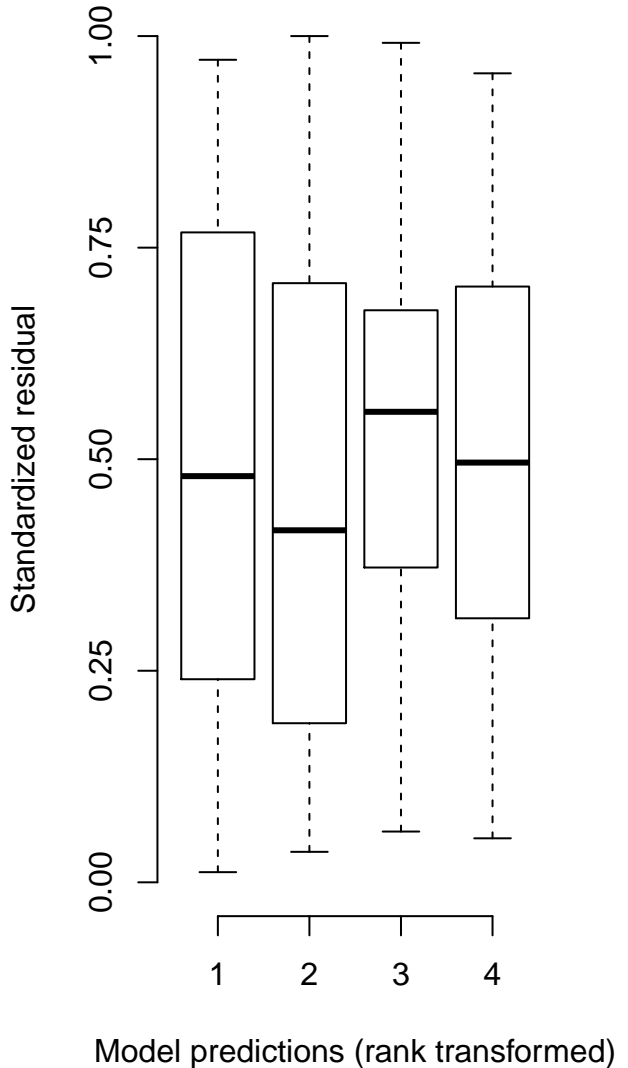
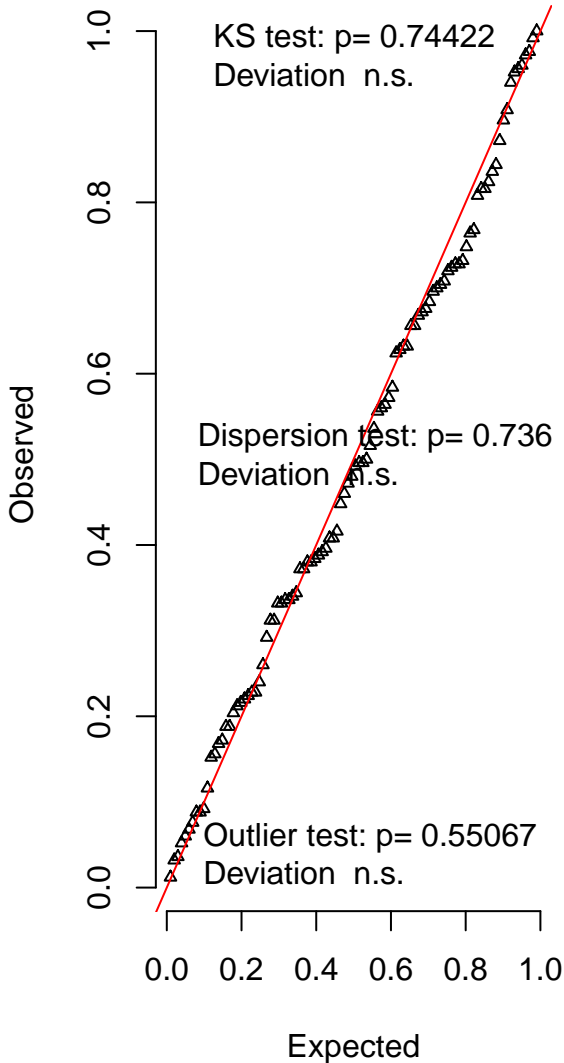
DHARMA residual diagnostics

QQ plot residuals



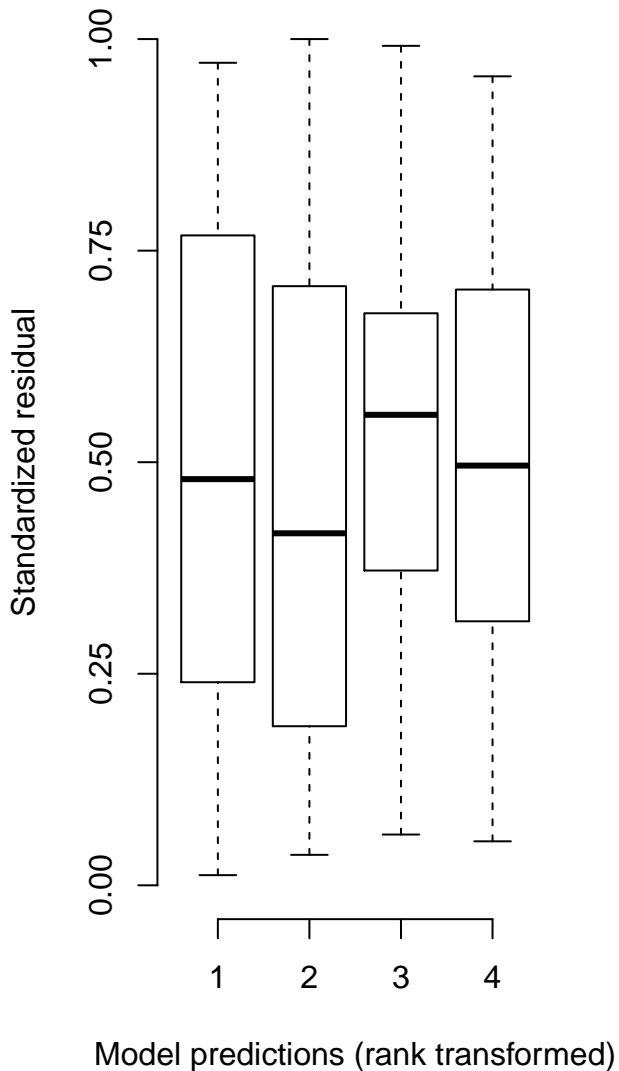
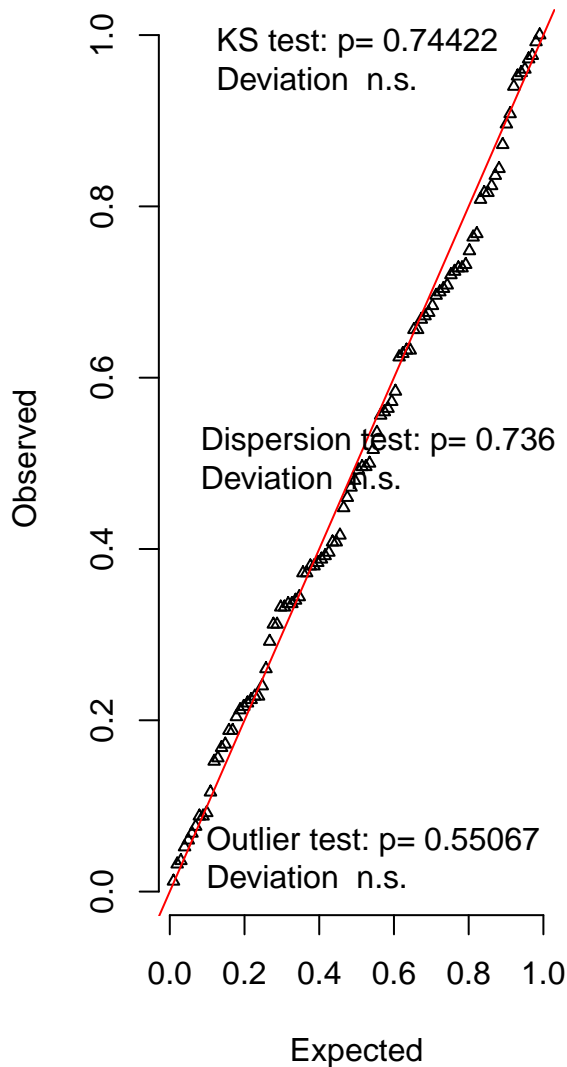
DHARMA residual diagnostics

QQ plot residuals

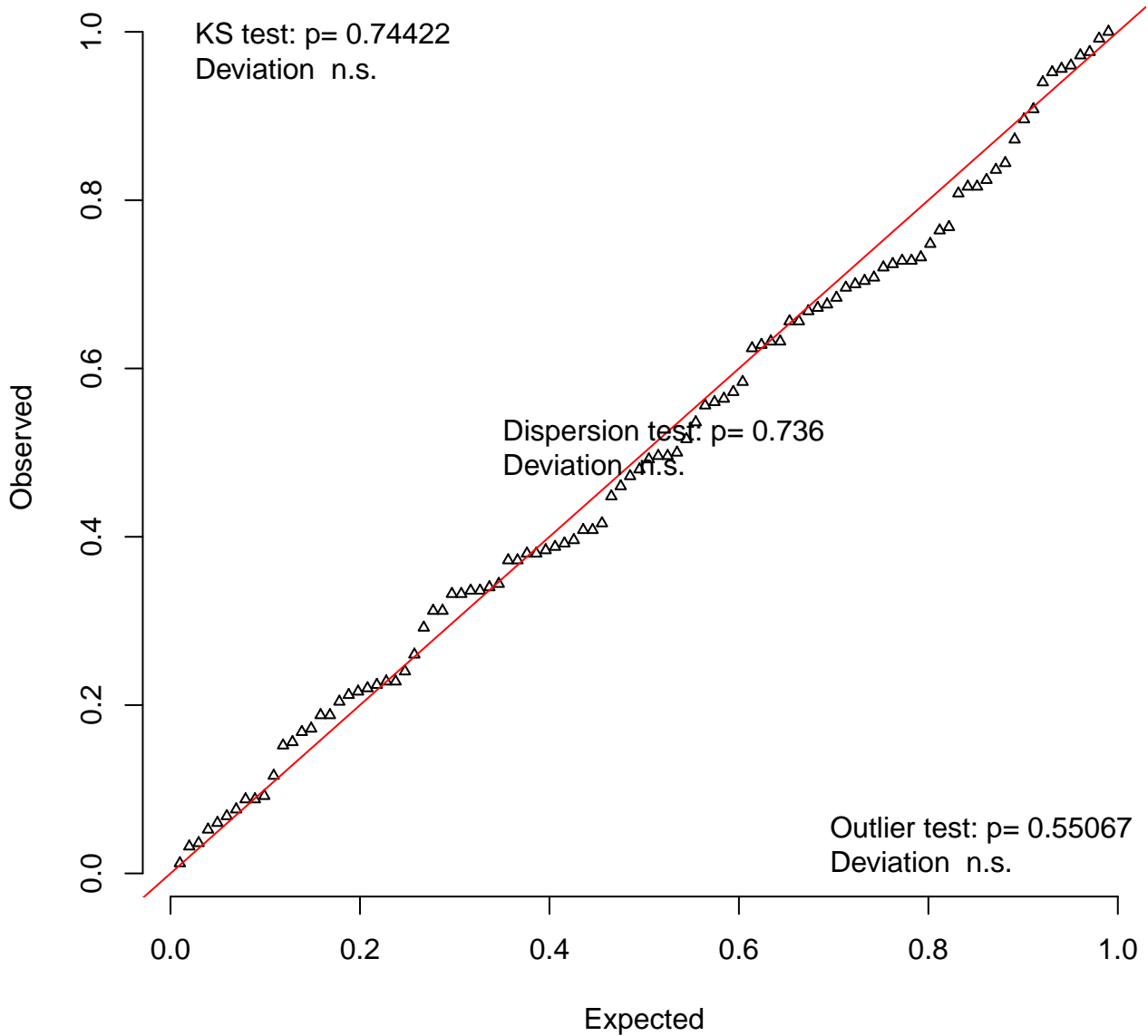


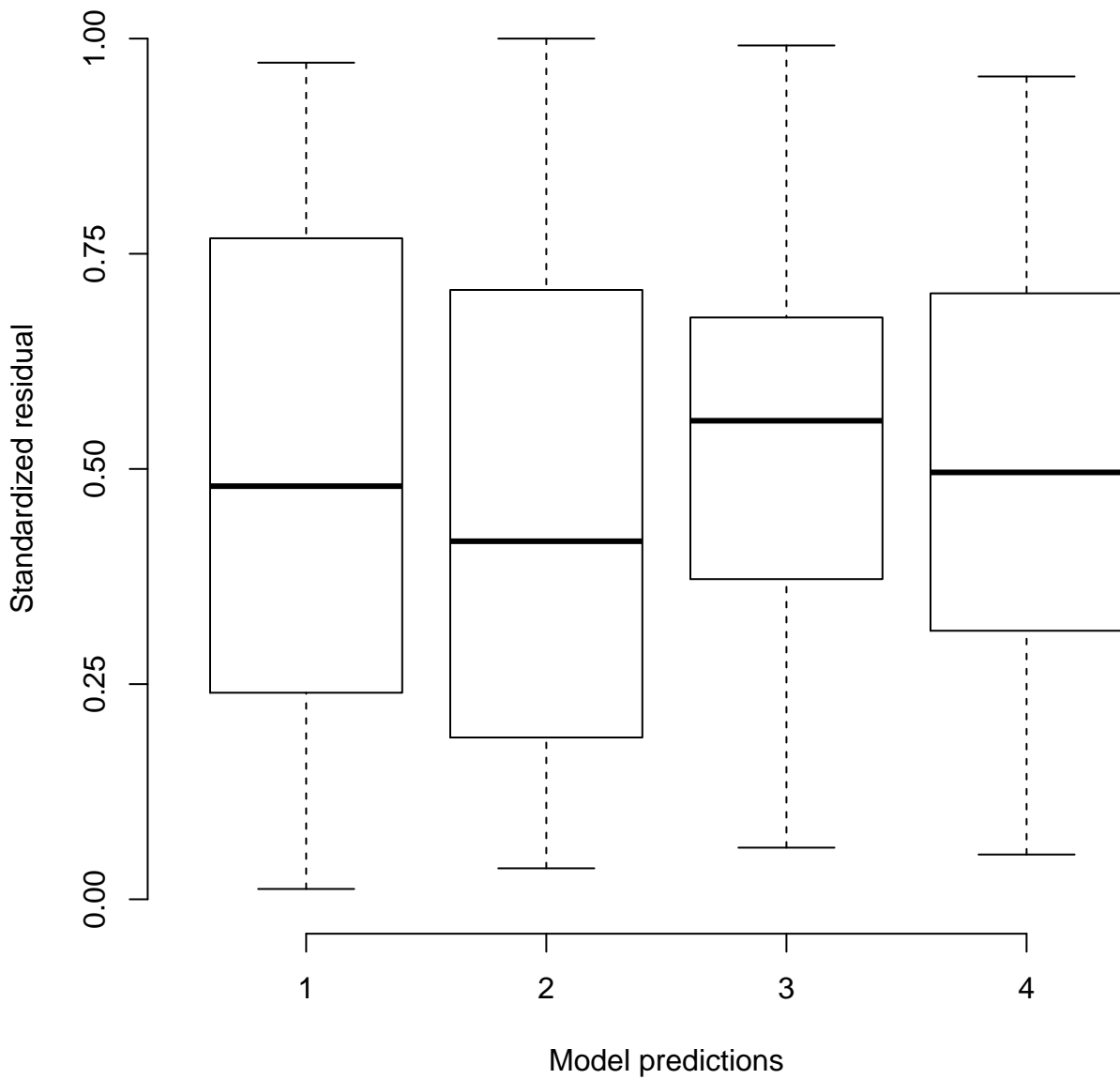
DHARMA residual diagnostics

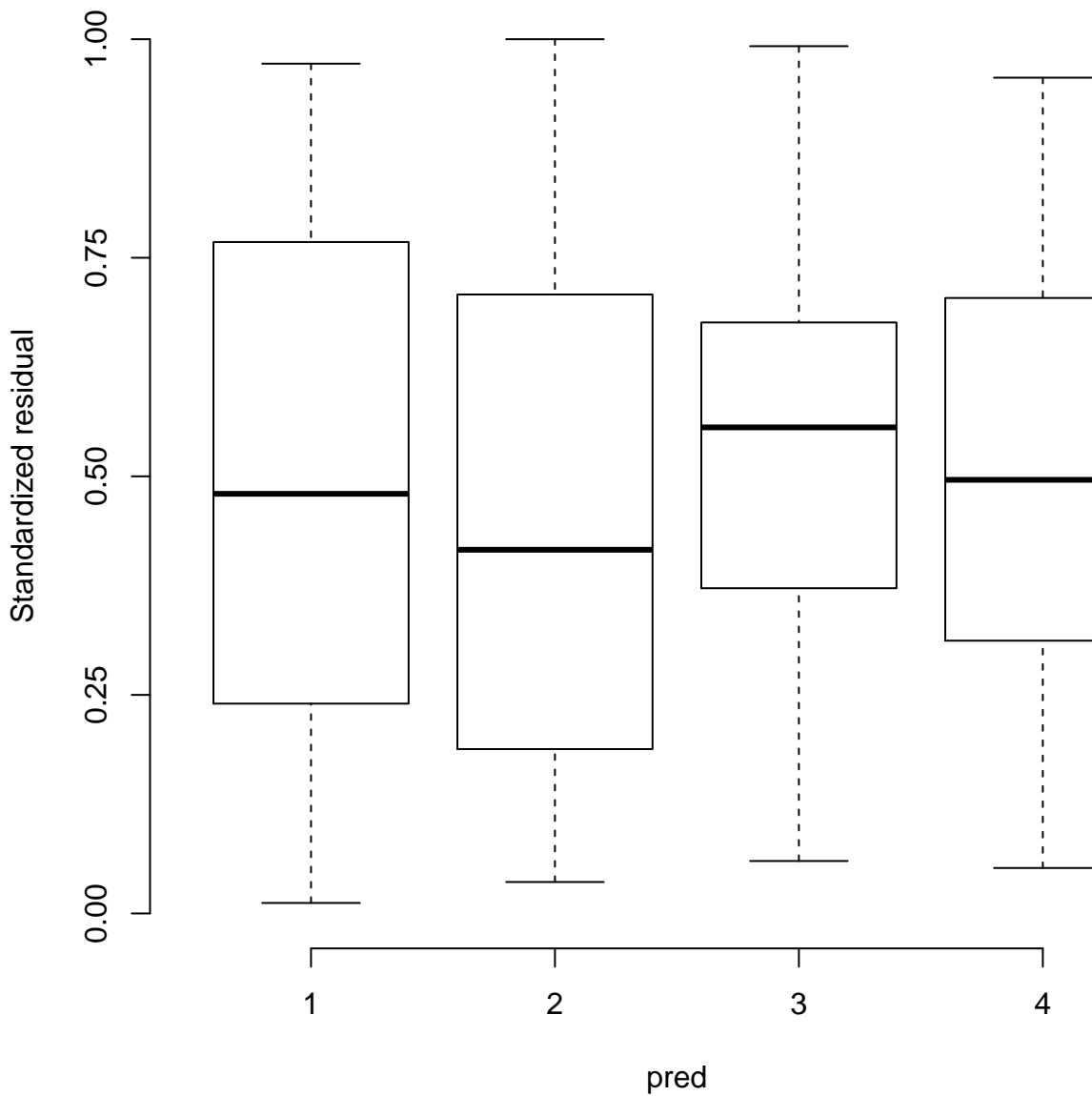
QQ plot residuals



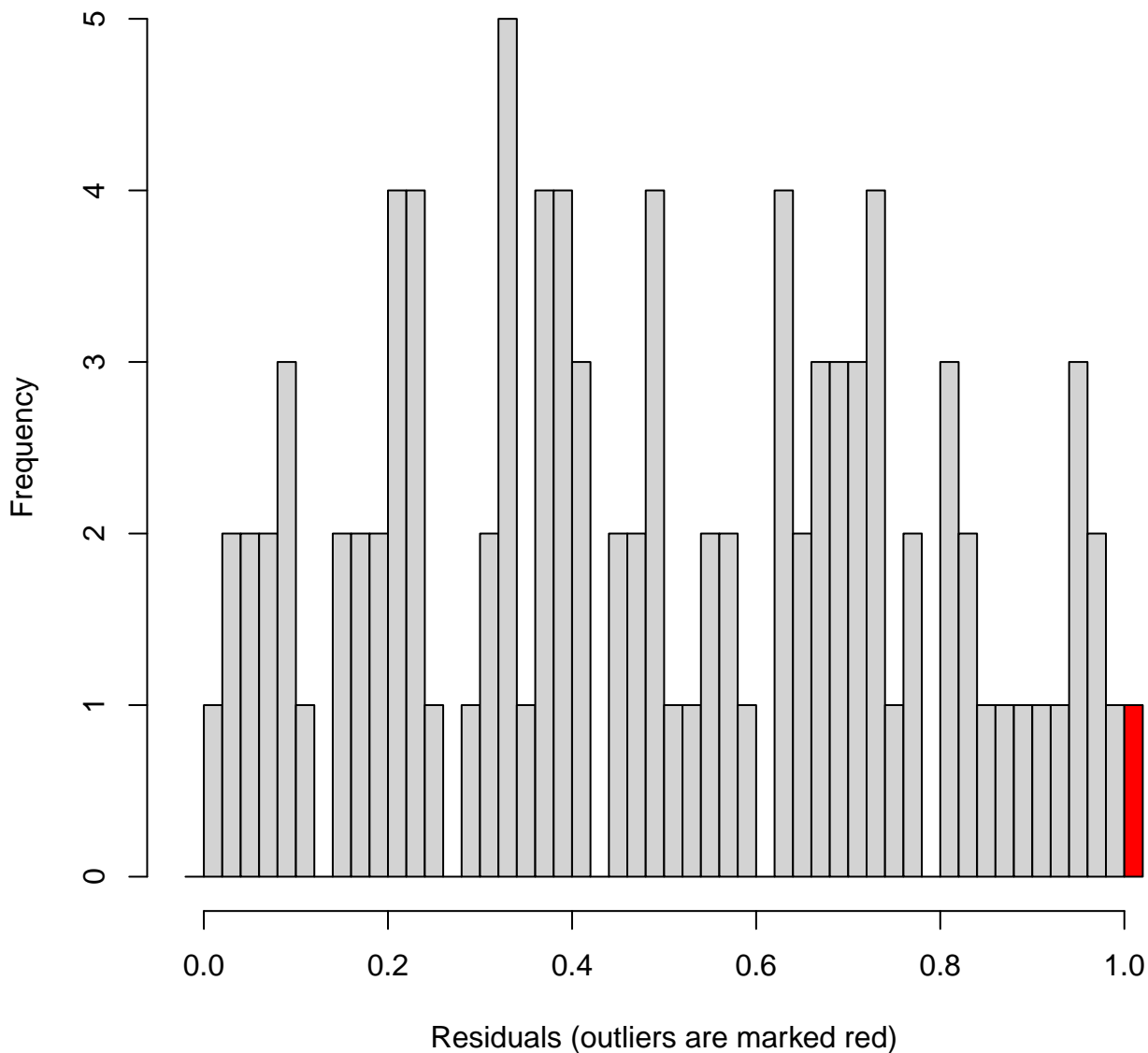
QQ plot residuals

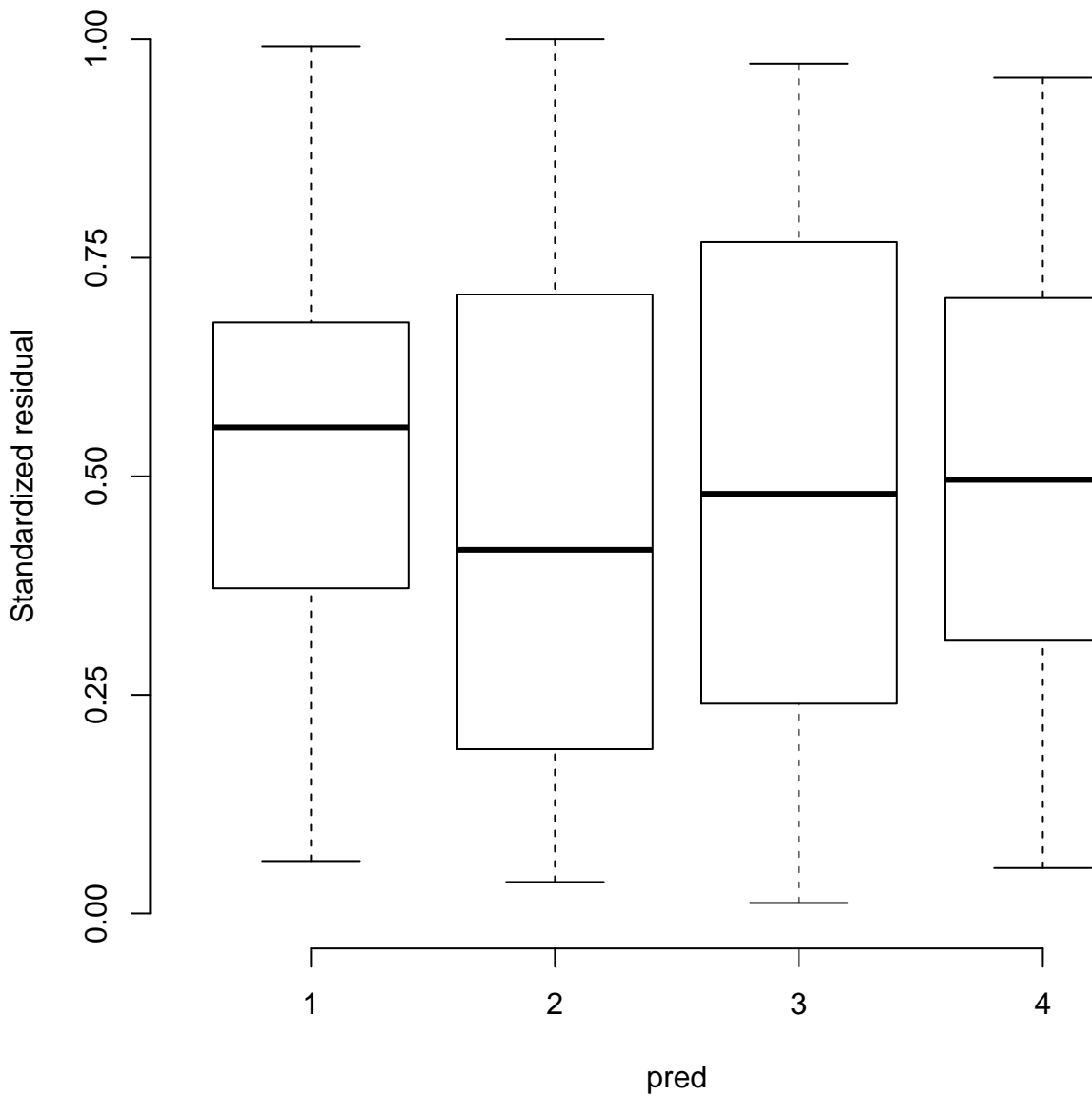






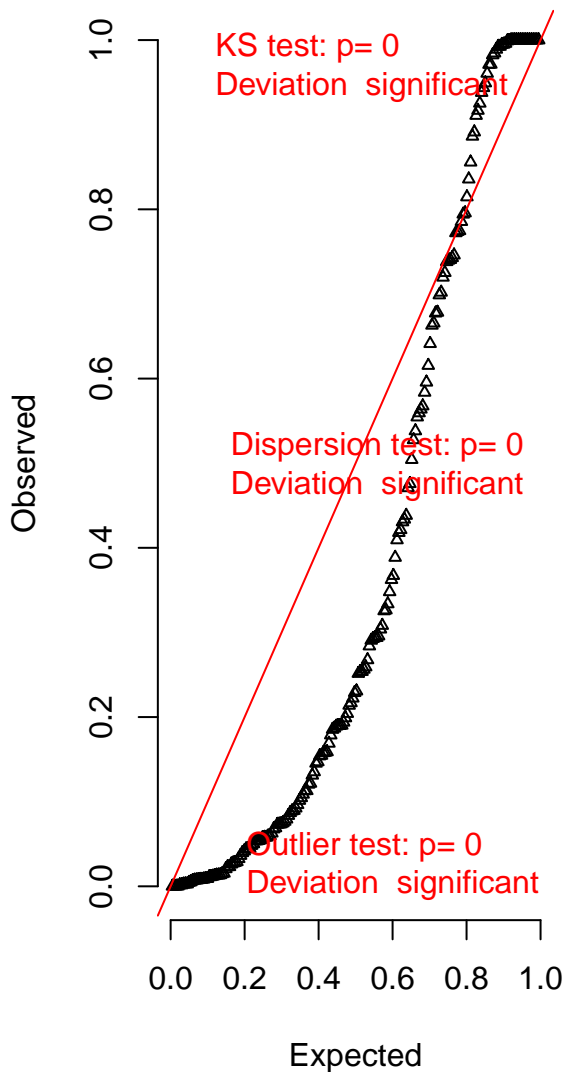
Hist of DHARMA residuals





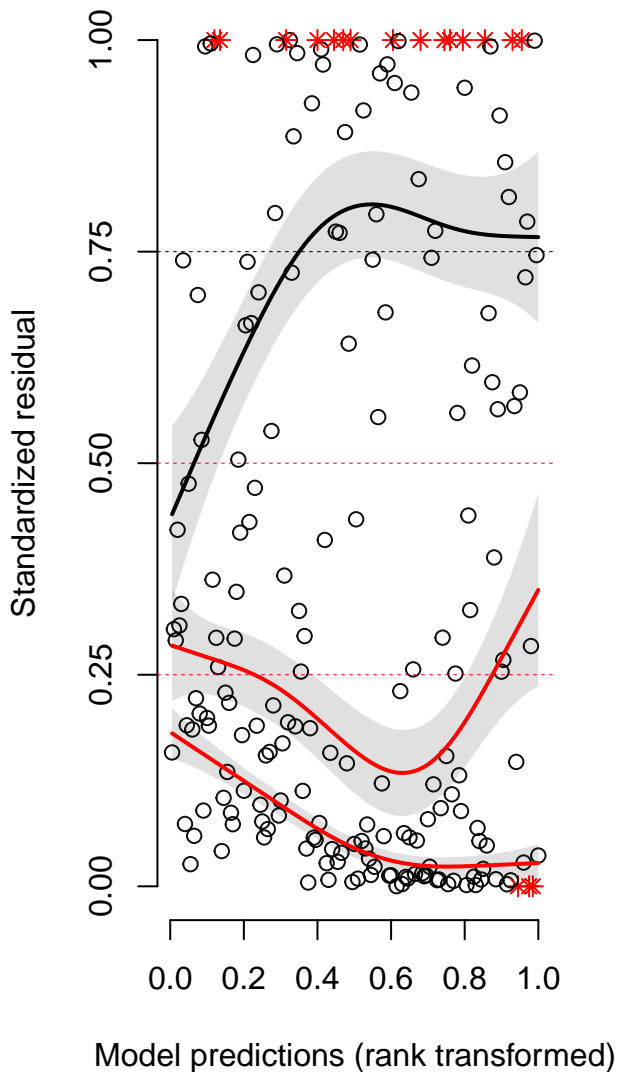
DHARMA residual diagnostics

QQ plot residuals



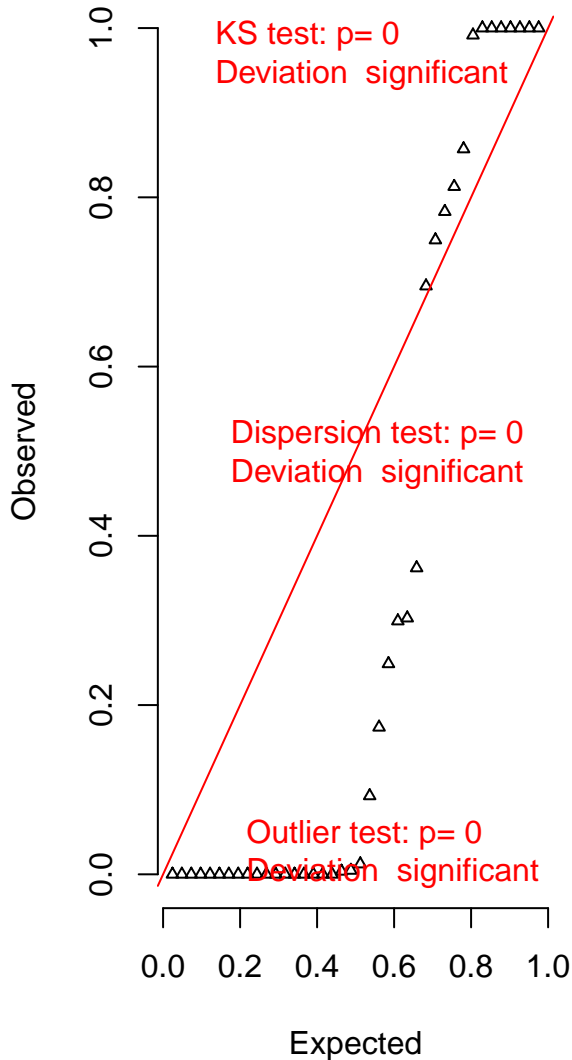
Residual vs. predicted

Quantile deviations detected (red curves)
Combined adjusted quantile test significant

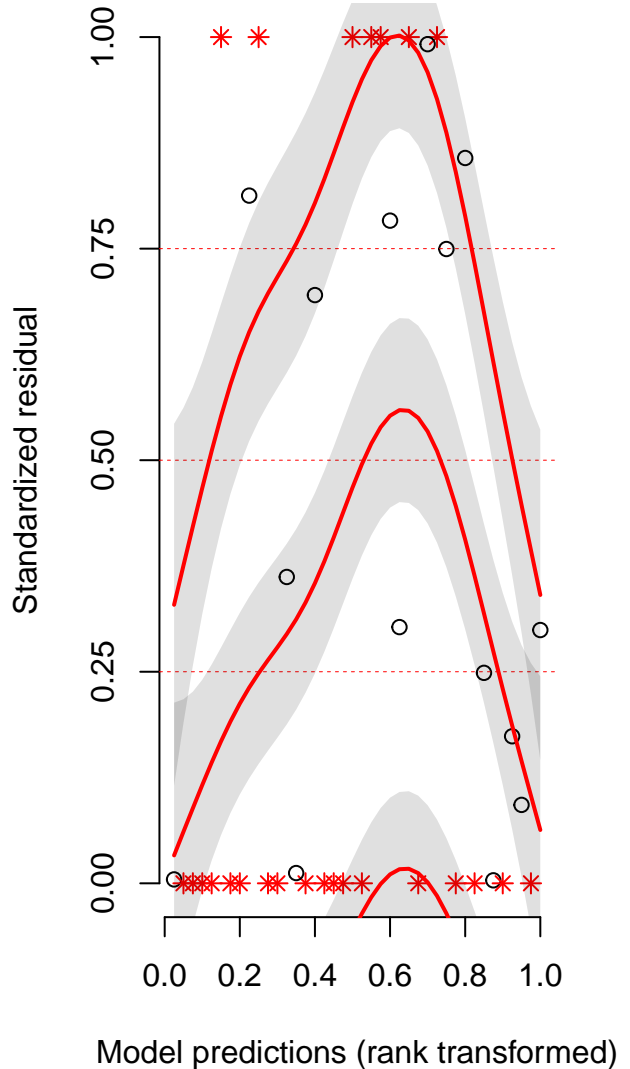


DHARMA residual diagnostics

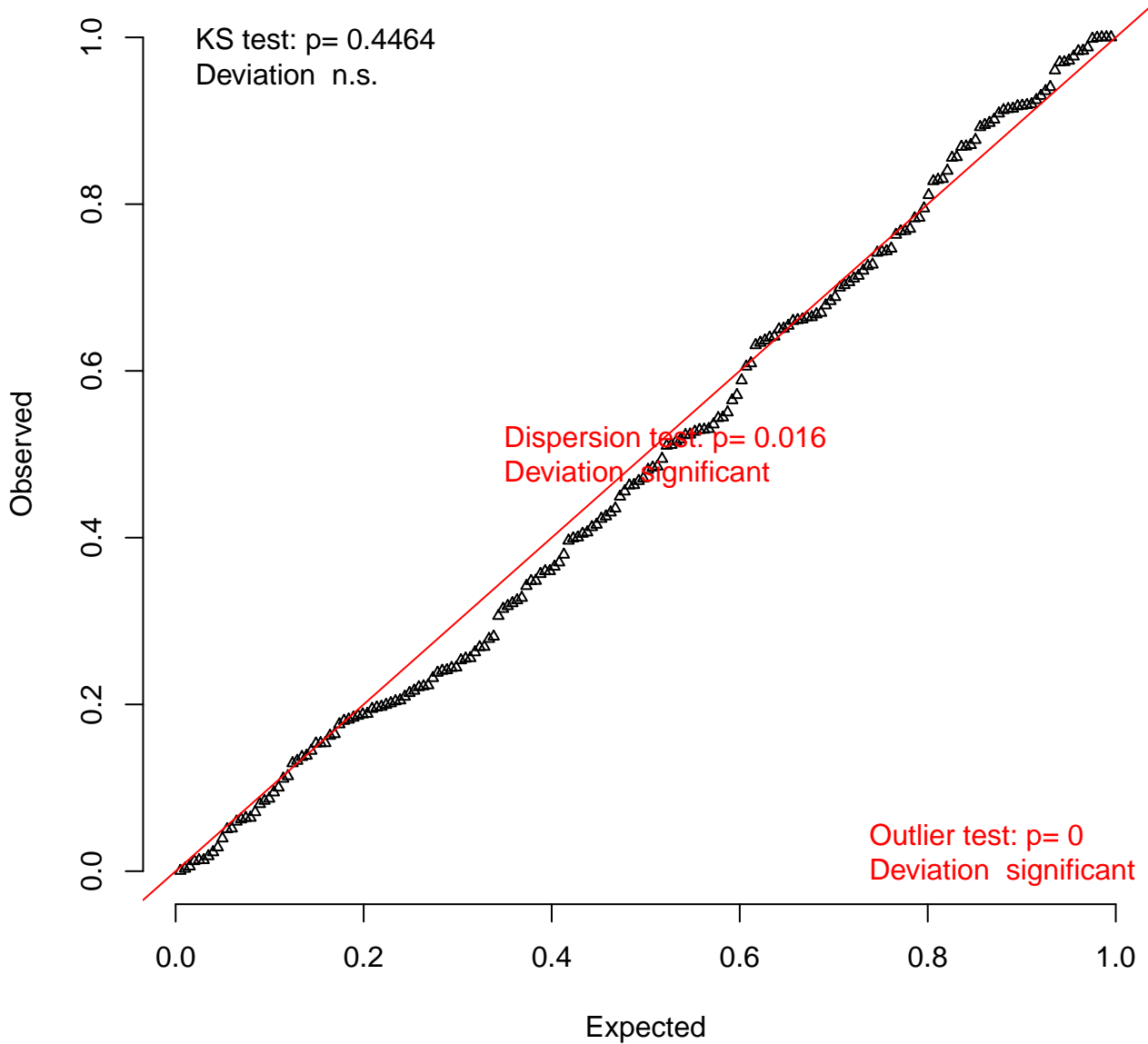
QQ plot residuals



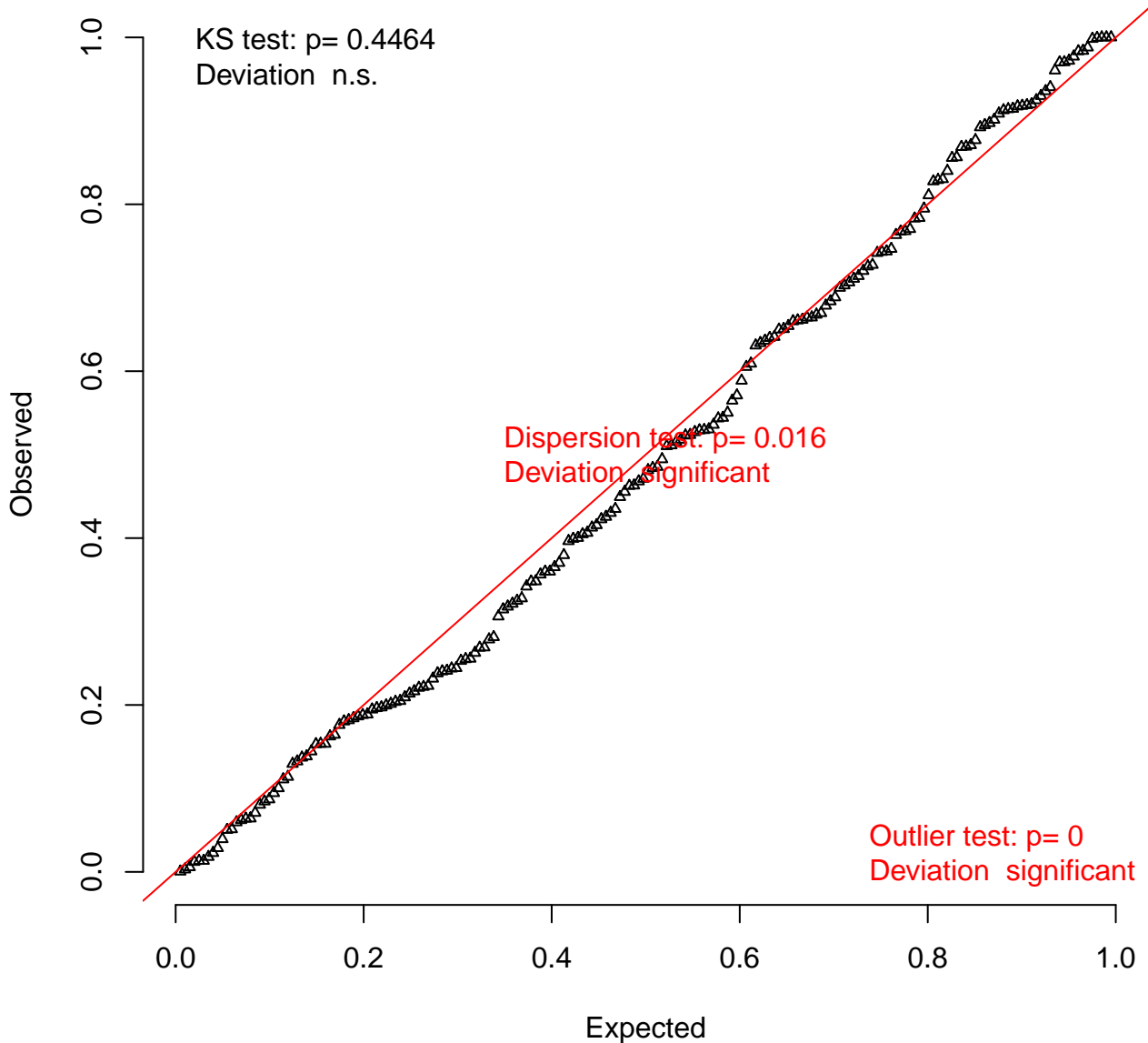
Residual vs. predicted Quantile deviations detected (red curves) Combined adjusted quantile test significant



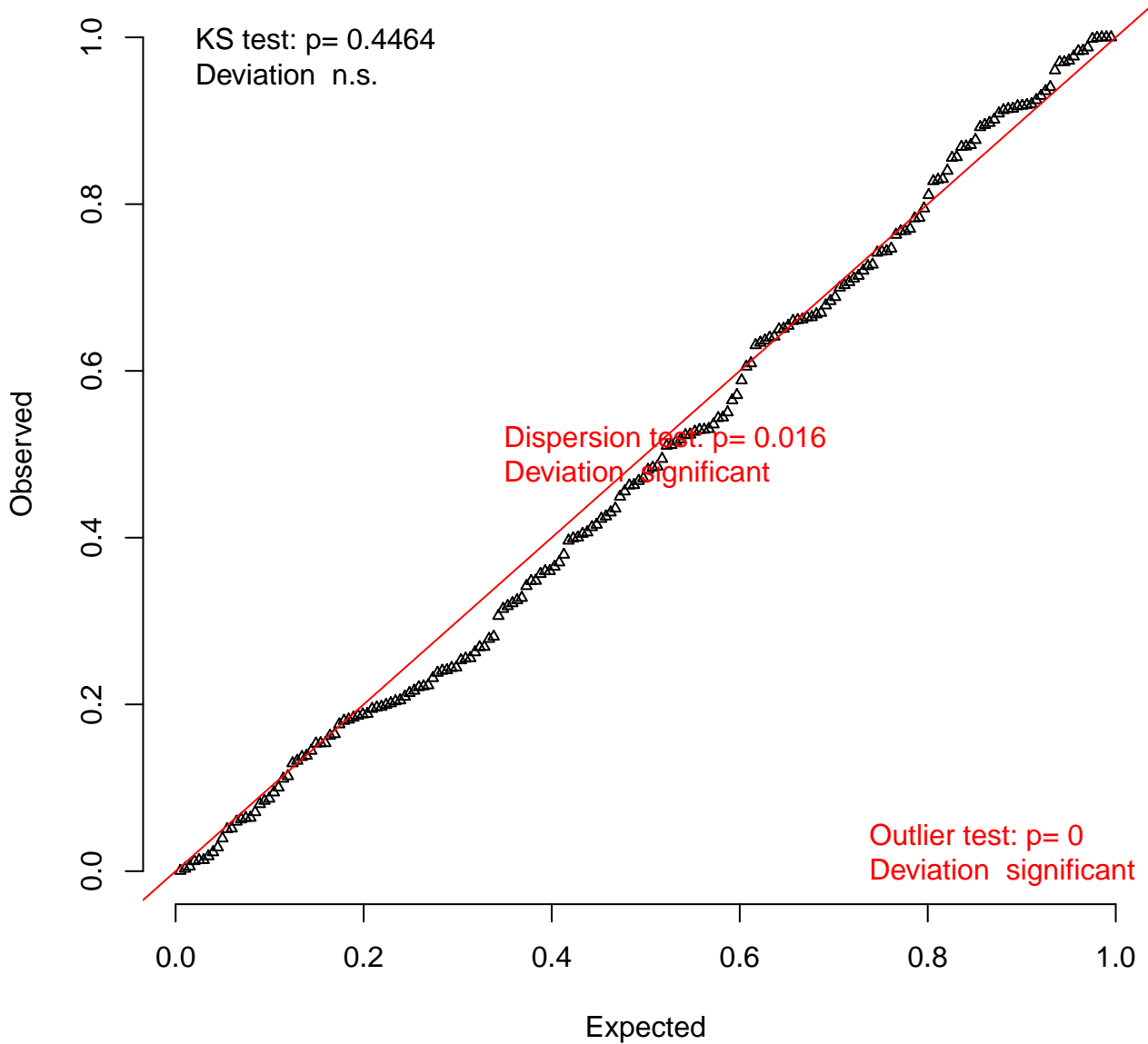
QQ plot residuals



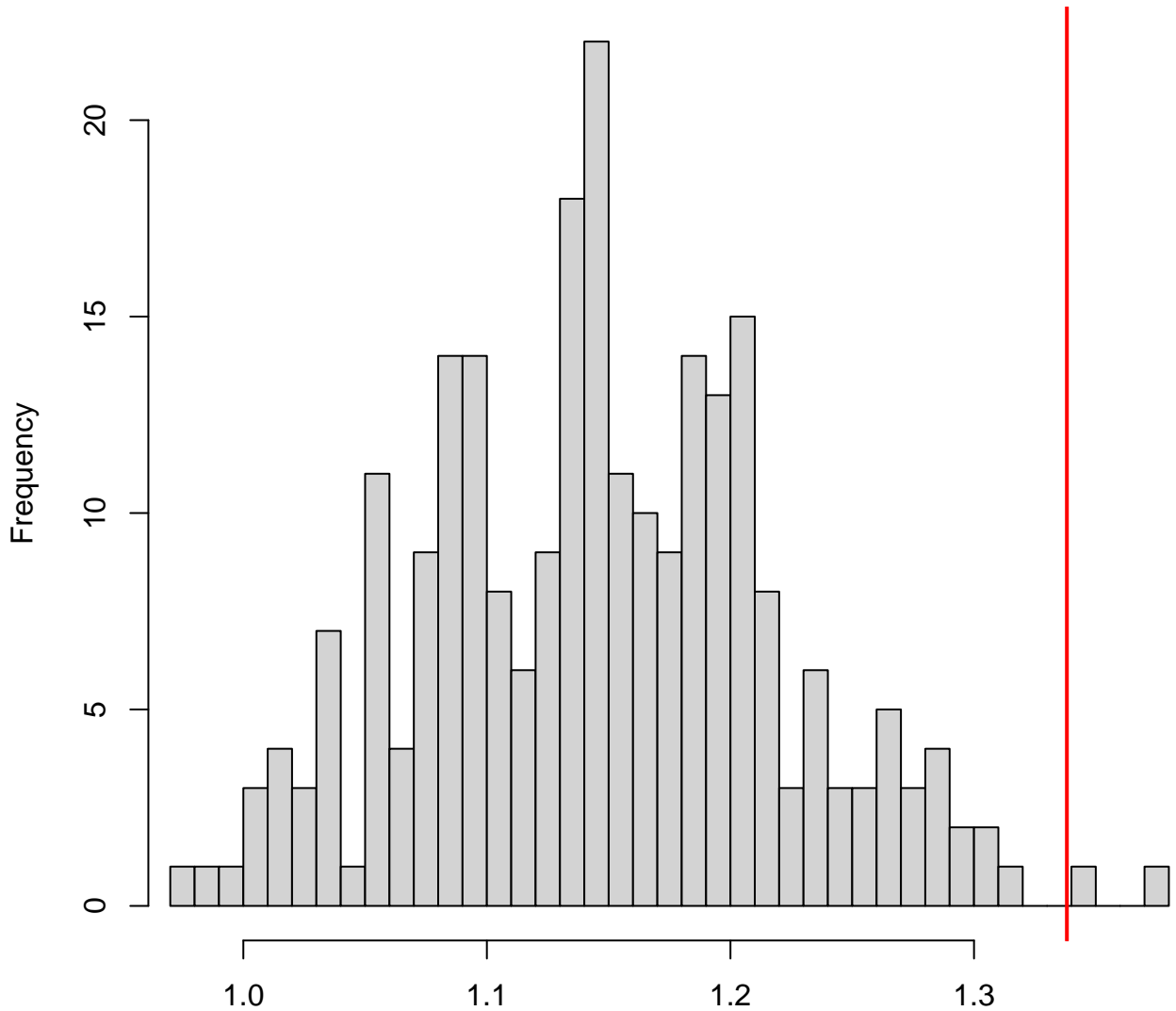
QQ plot residuals



QQ plot residuals

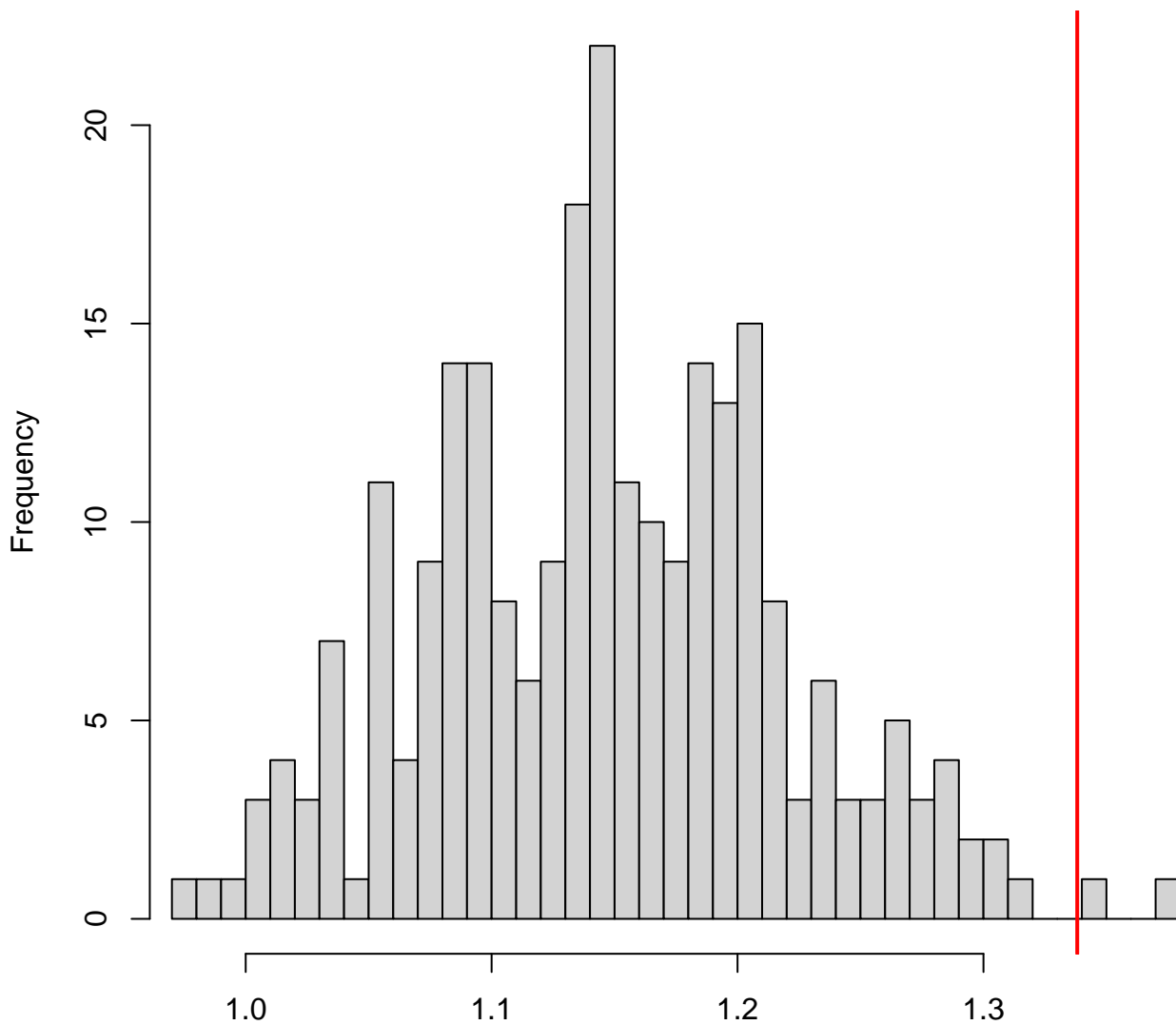


**DHARMA nonparametric dispersion test via sd of
residuals fitted vs. simulated**



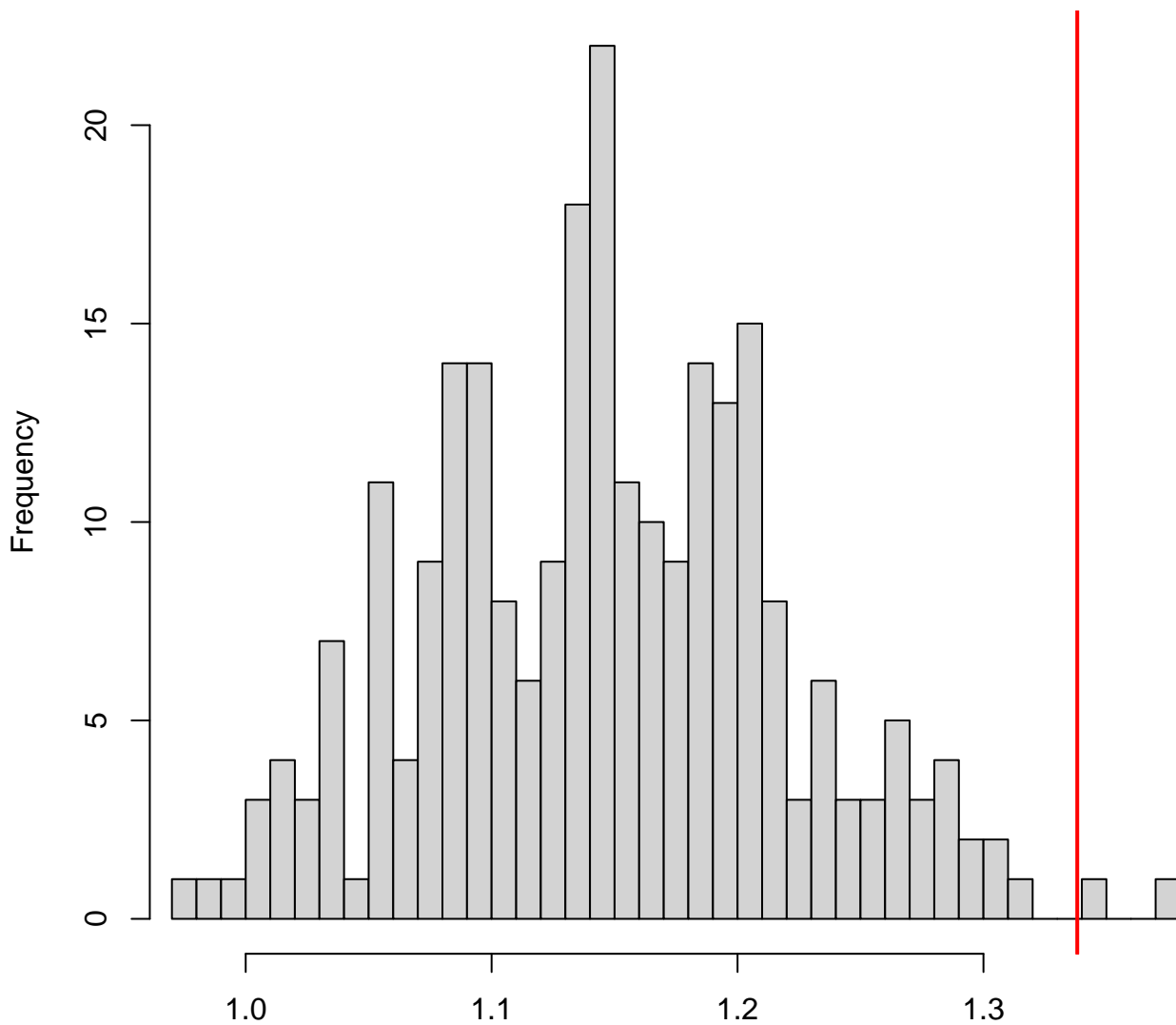
Simulated values, red line = fitted model. p-value (two.sided) = 0.016

**DHARMA nonparametric dispersion test via sd of
residuals fitted vs. simulated**



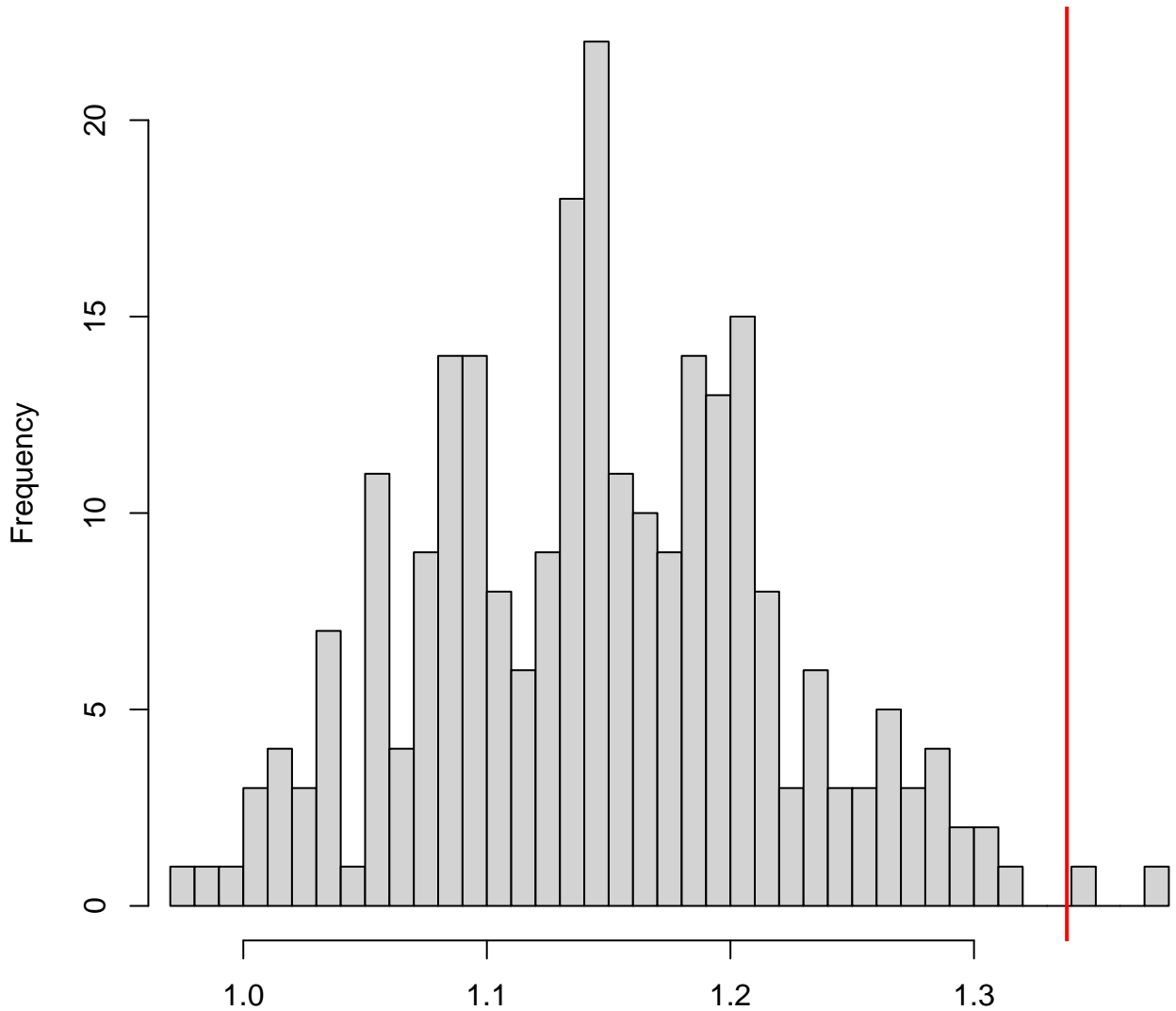
Simulated values, red line = fitted model. p-value (less) = 0.992

**DHARMA nonparametric dispersion test via sd of
residuals fitted vs. simulated**



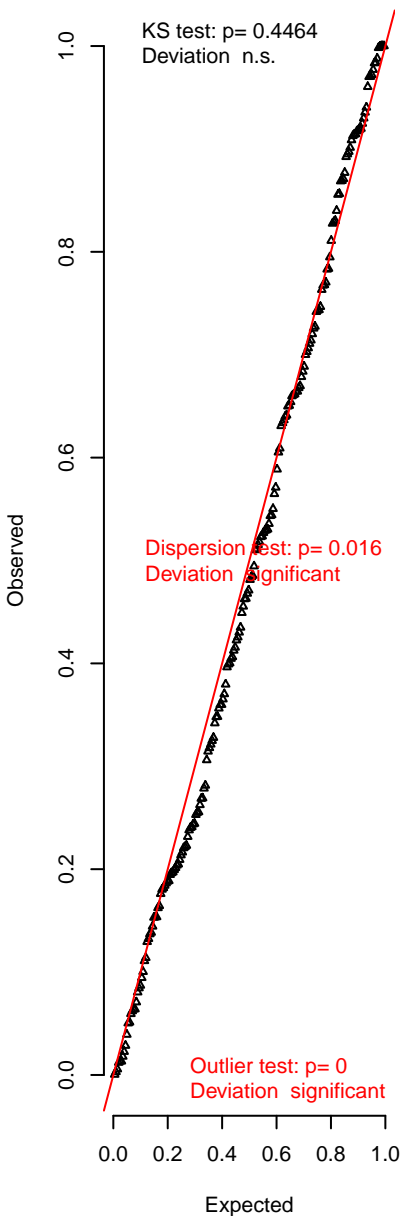
Simulated values, red line = fitted model. p-value (greater) = 0.008

**DHARMA nonparametric dispersion test via sd of
residuals fitted vs. simulated**

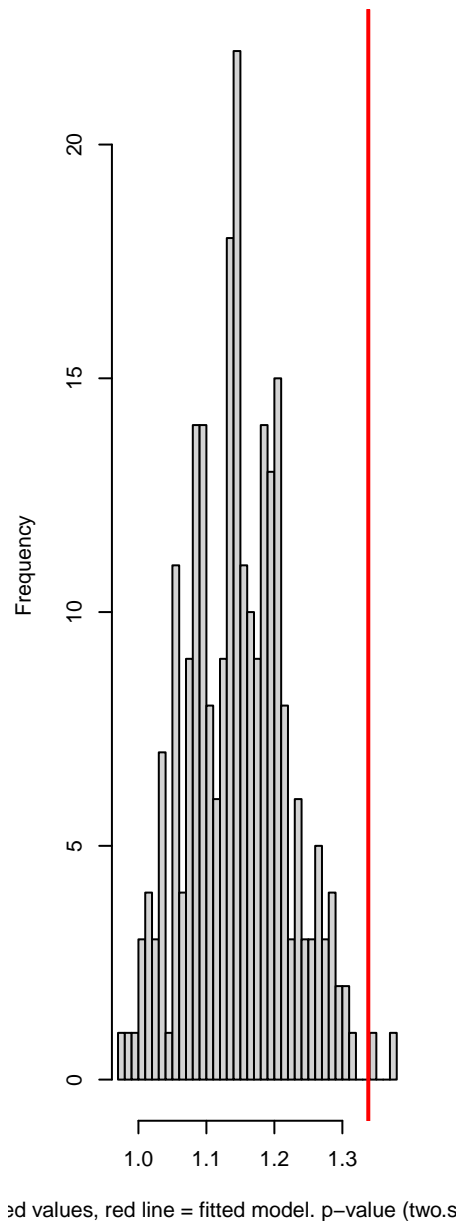


Simulated values, red line = fitted model. p-value (two.sided) = 0.016

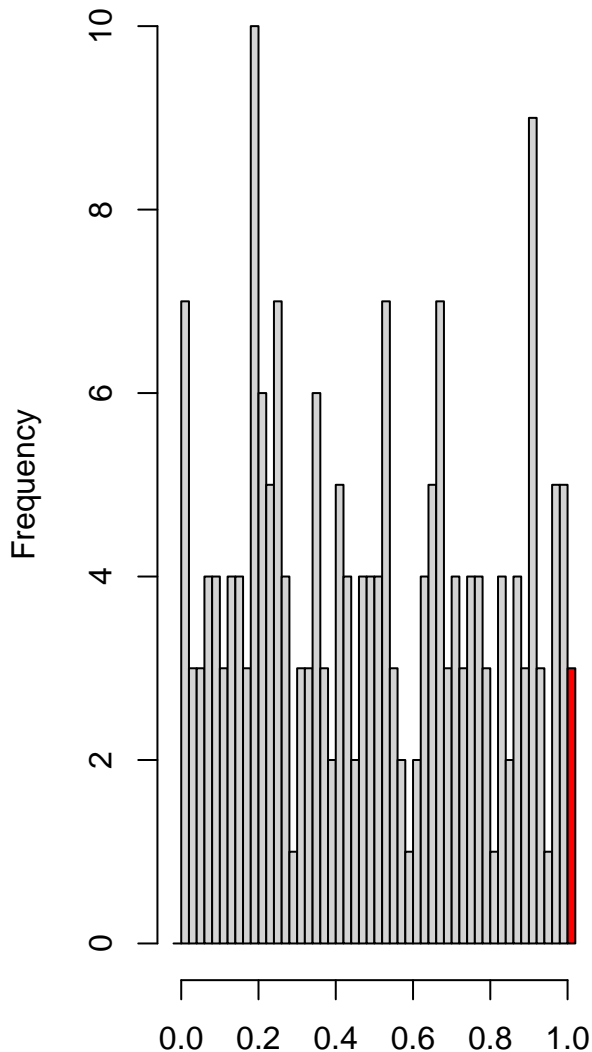
QQ plot residuals



DHARMA nonparametric dispersion test via sd of residuals fitted vs. simulated

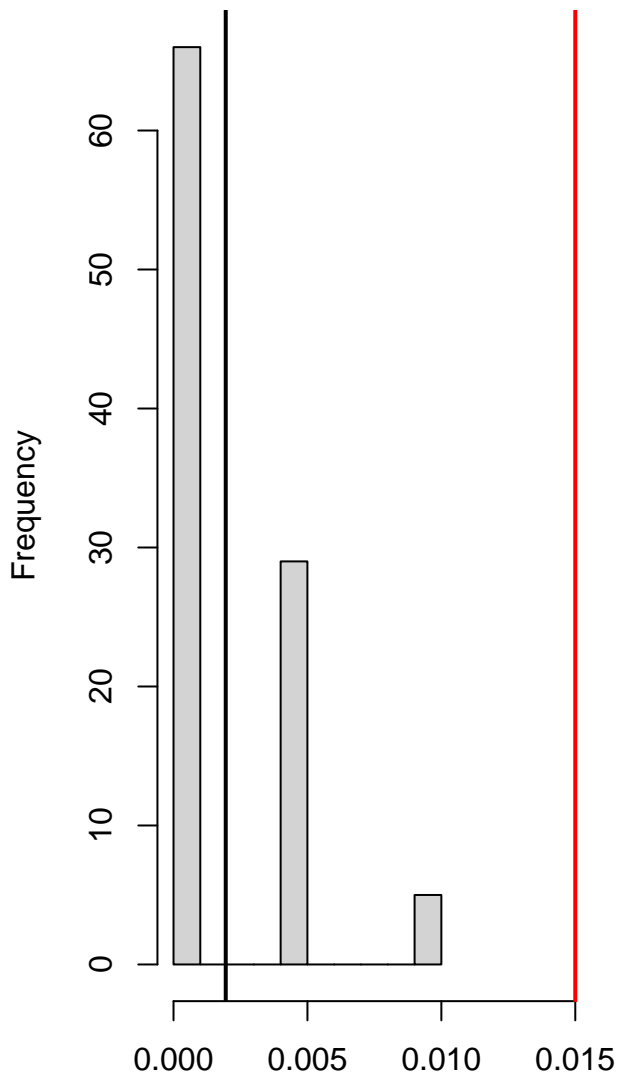


Outlier test significant



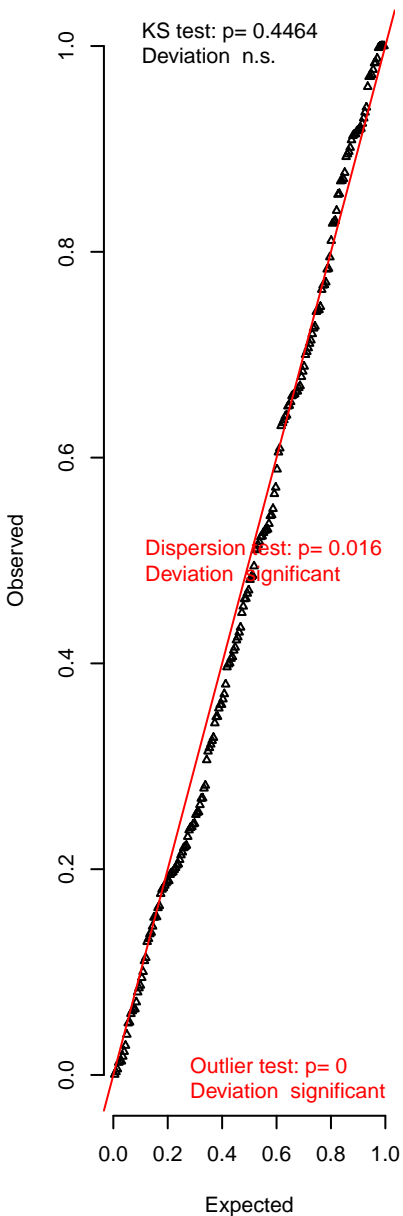
Residuals (outliers are marked red)

Histogram of frequBoot

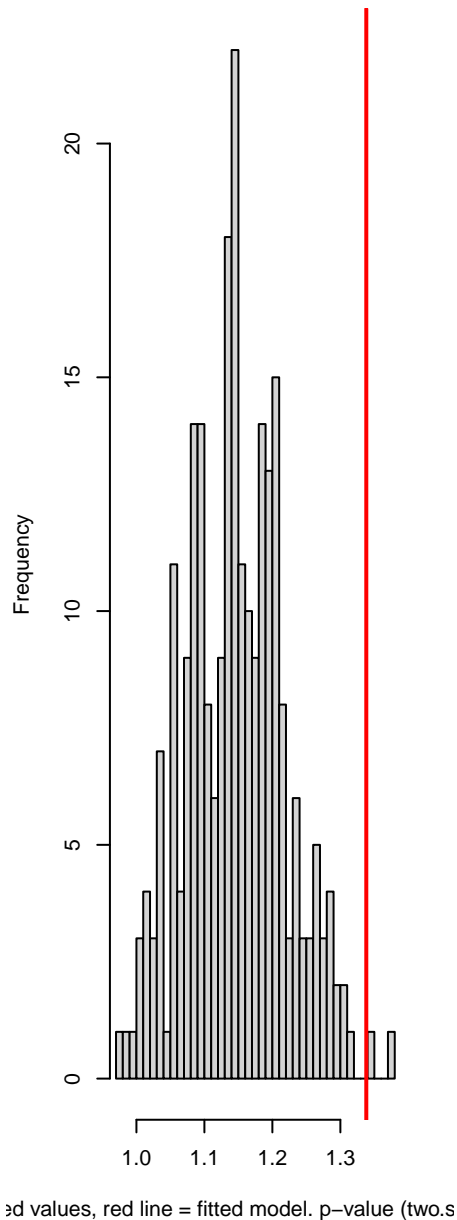


frequBoot

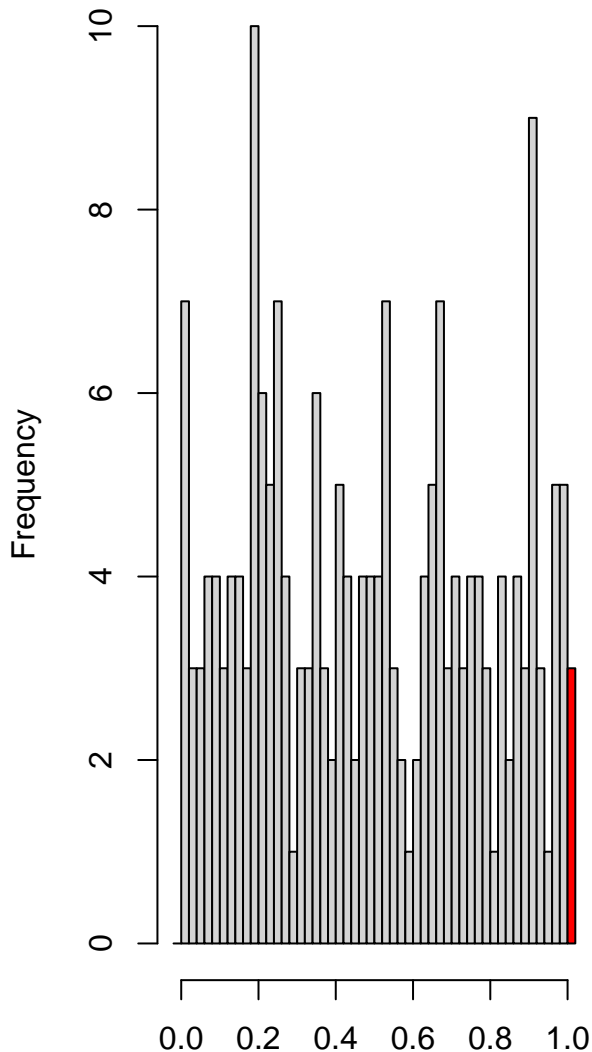
QQ plot residuals



DHARMA nonparametric dispersion test via sd of residuals fitted vs. simulated

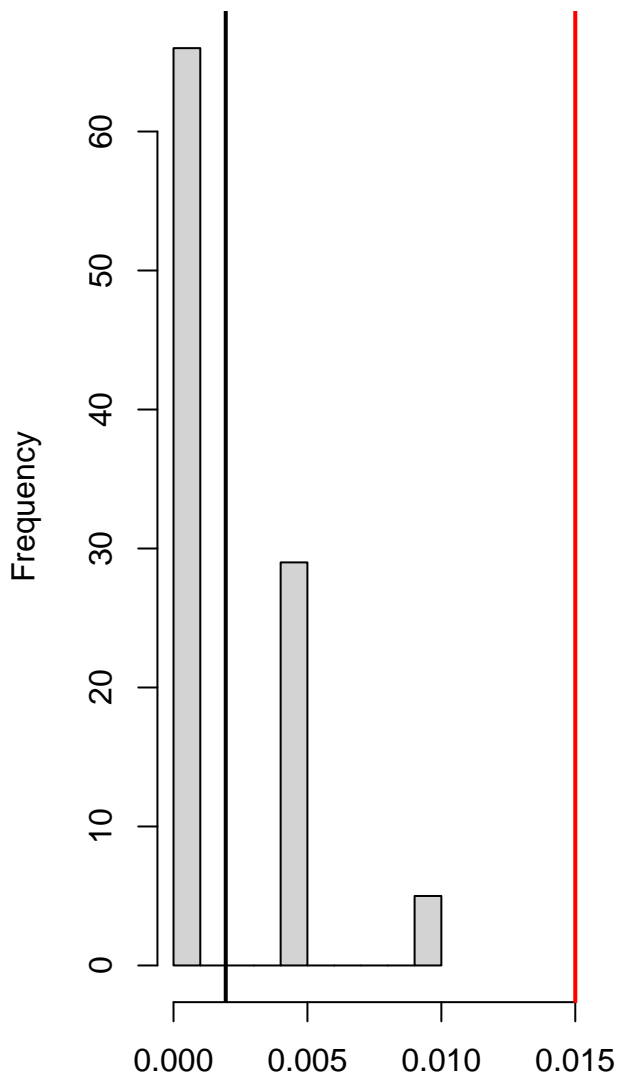


Outlier test significant



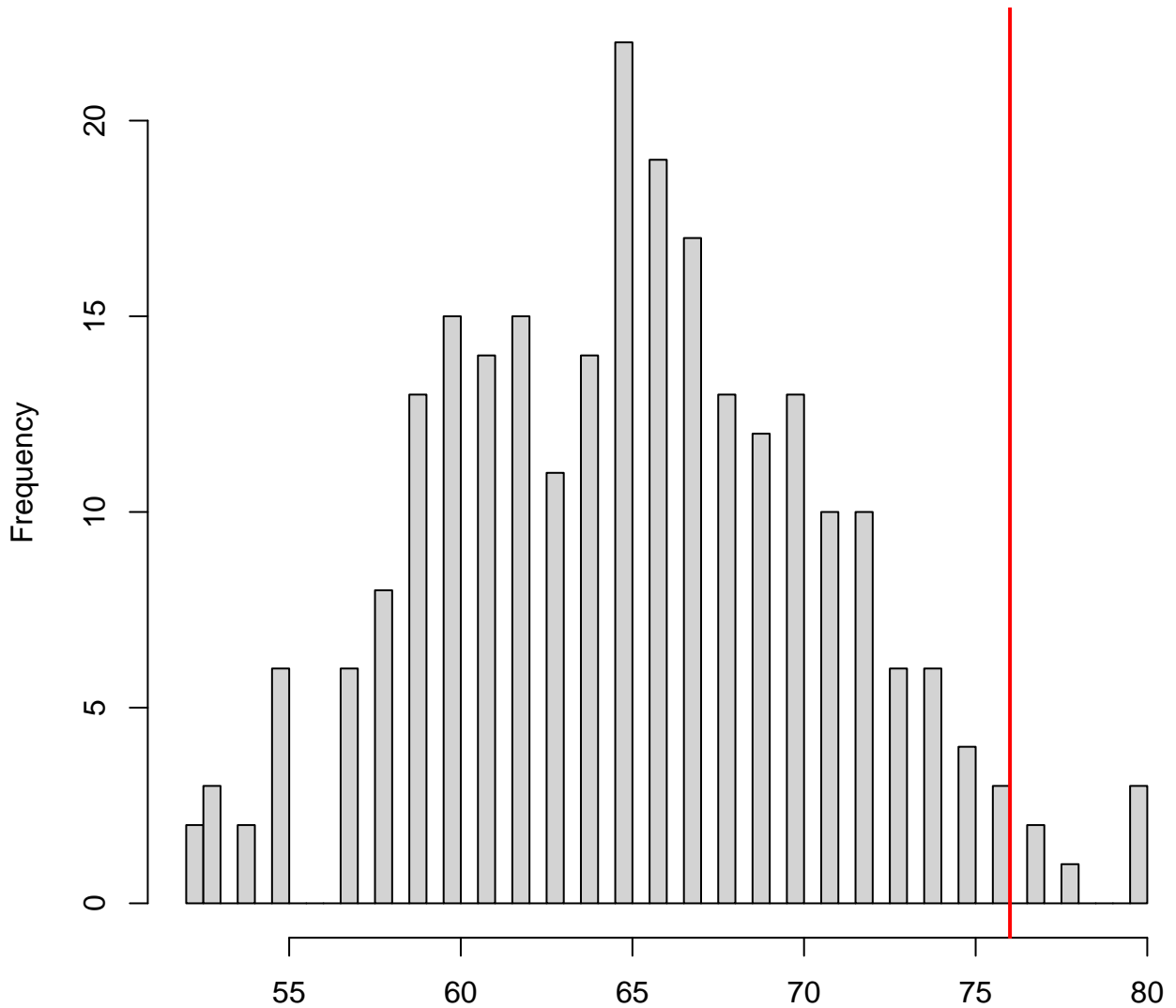
Residuals (outliers are marked red)

Histogram of frequBoot



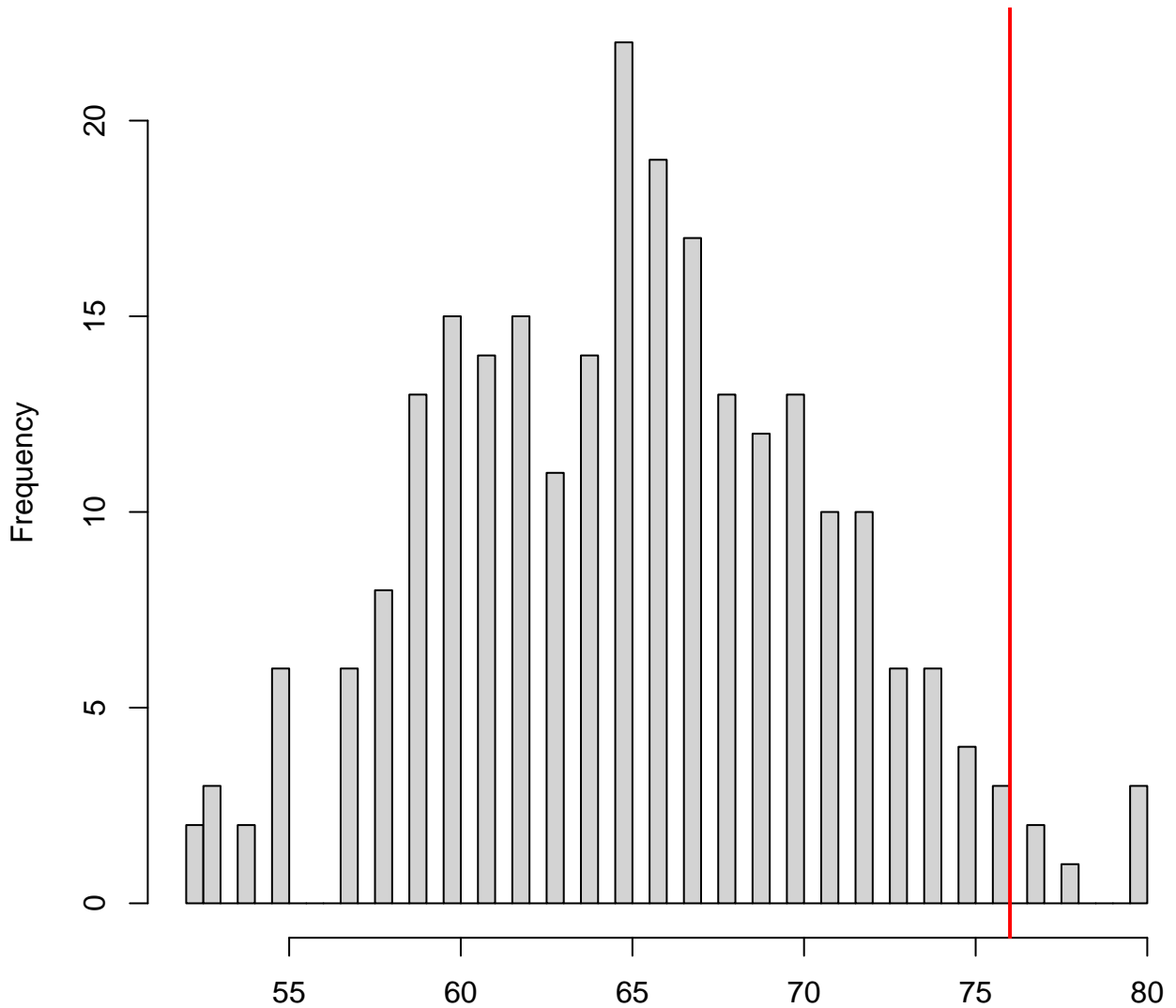
frequBoot

**DHARMA zero-inflation test via comparison to
expected zeros with simulation under H_0 = fitted
model**



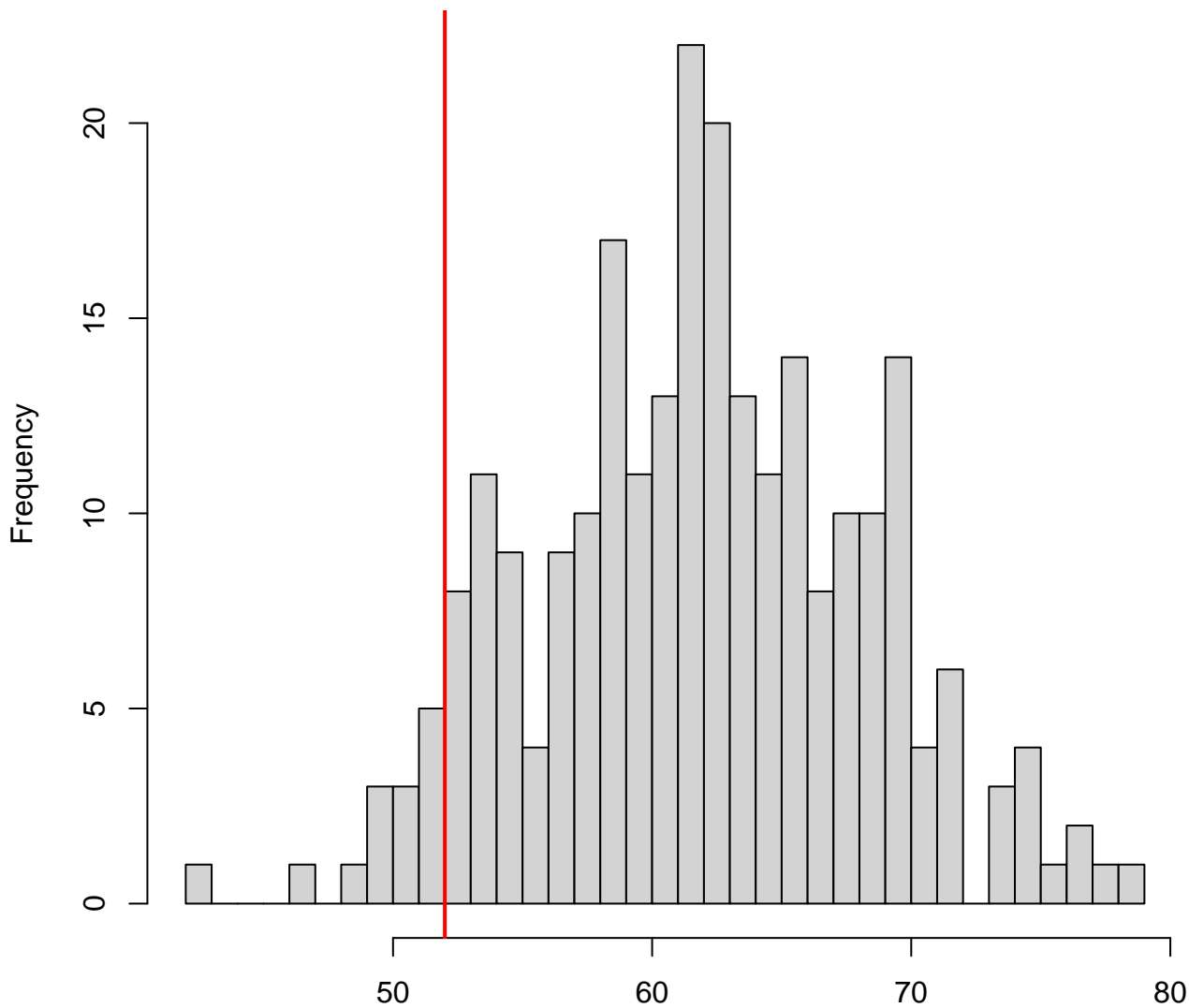
Simulated values, red line = fitted model. p-value (two.sided) = 0.072

**DHARMA zero-inflation test via comparison to
expected zeros with simulation under H0 = fitted
model**



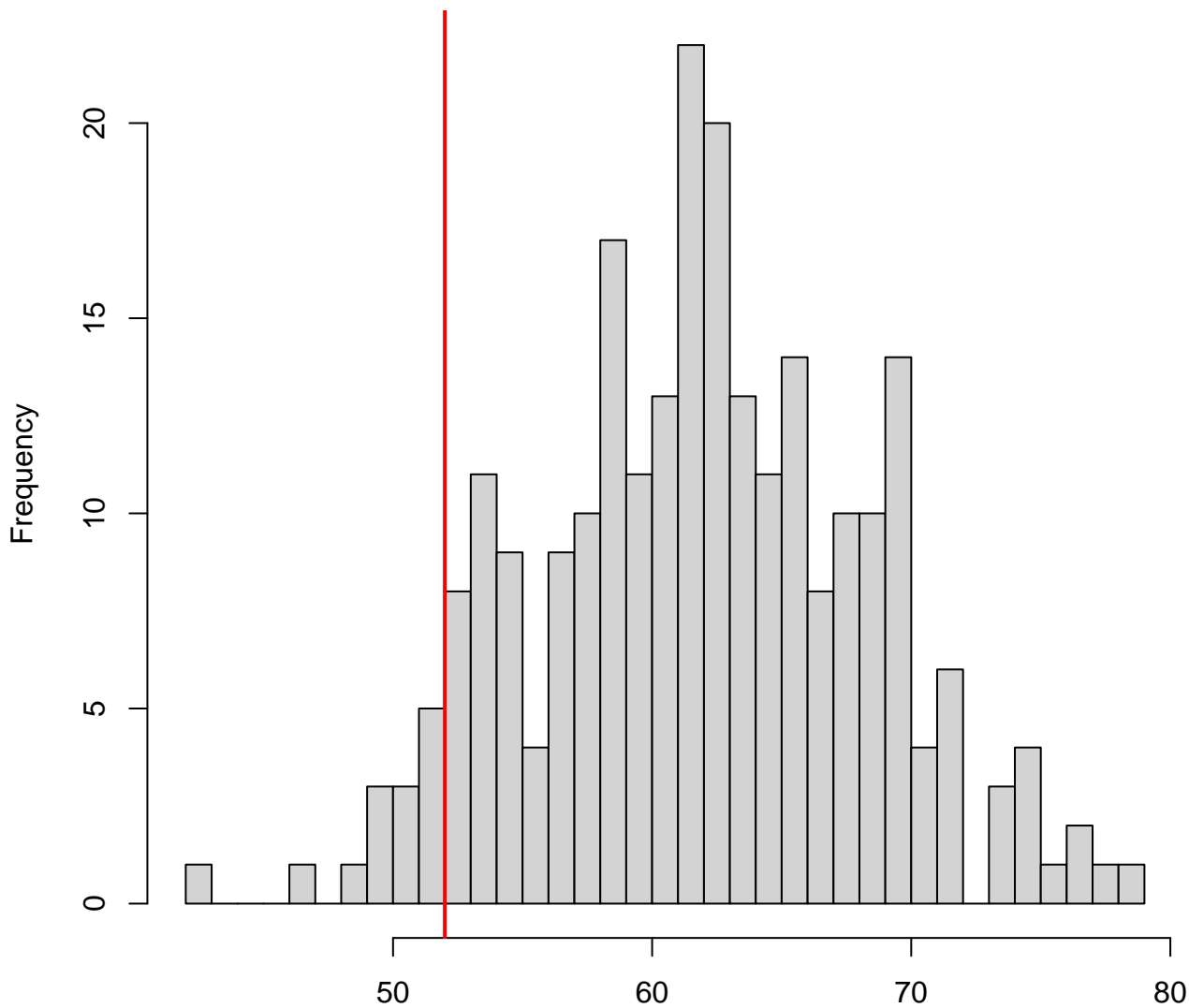
Simulated values, red line = fitted model. p-value (less) = 0.976

DHARMA generic simulation test



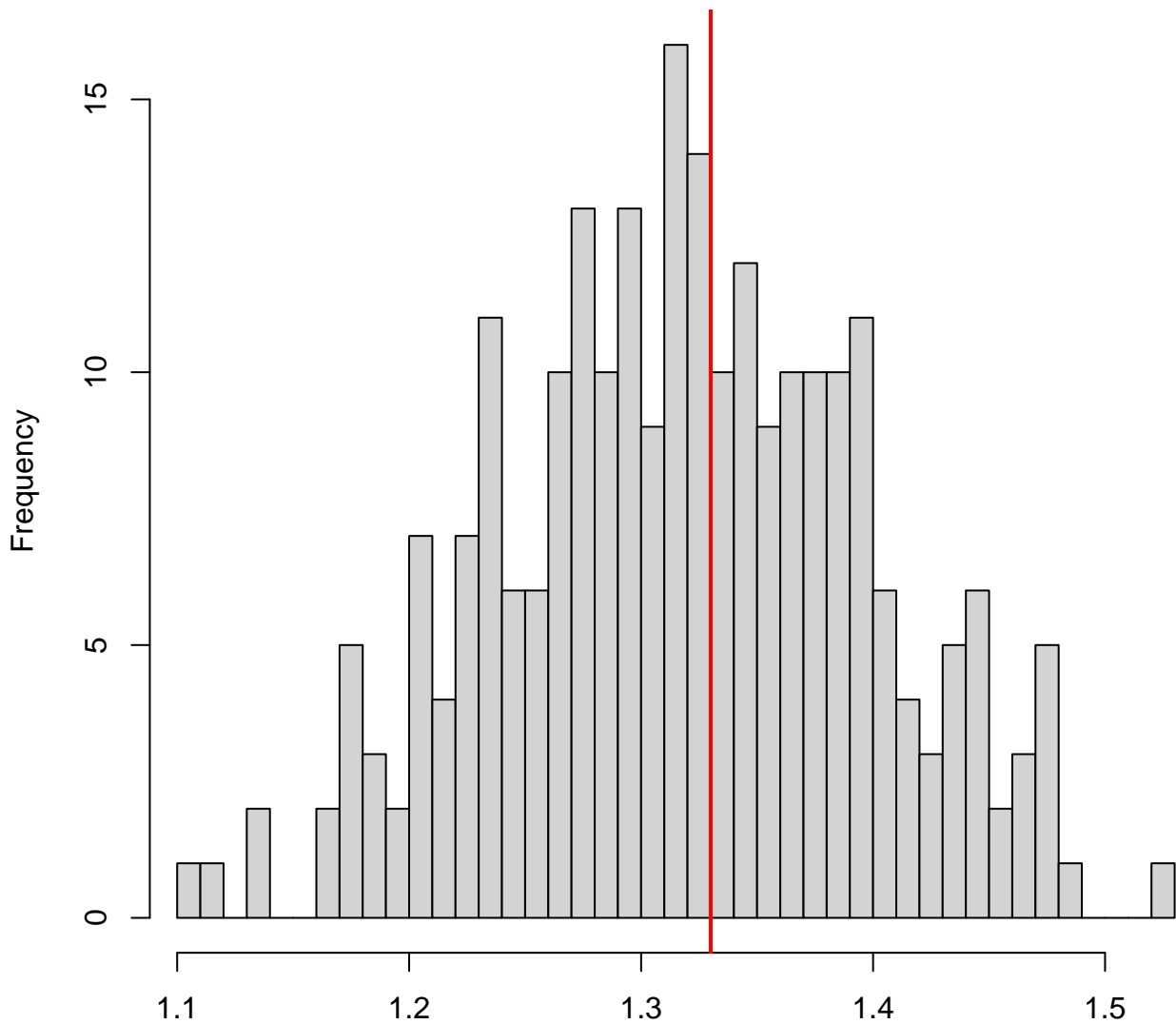
Simulated values, red line = fitted model. p-value (two.sided) = 0.112

DHARMA generic simulation test



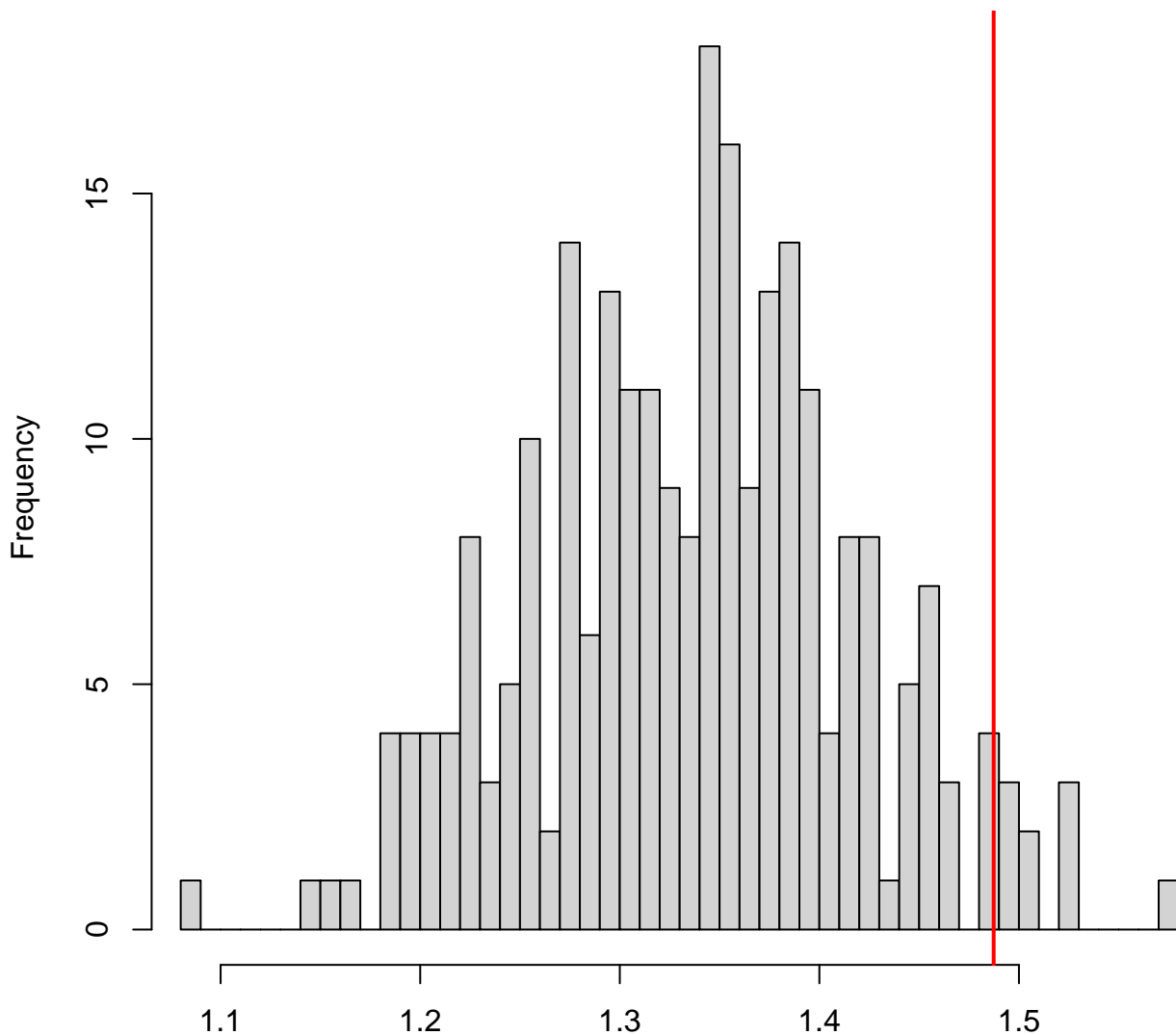
Simulated values, red line = fitted model. p-value (less) = 0.056

DHARMa generic simulation test



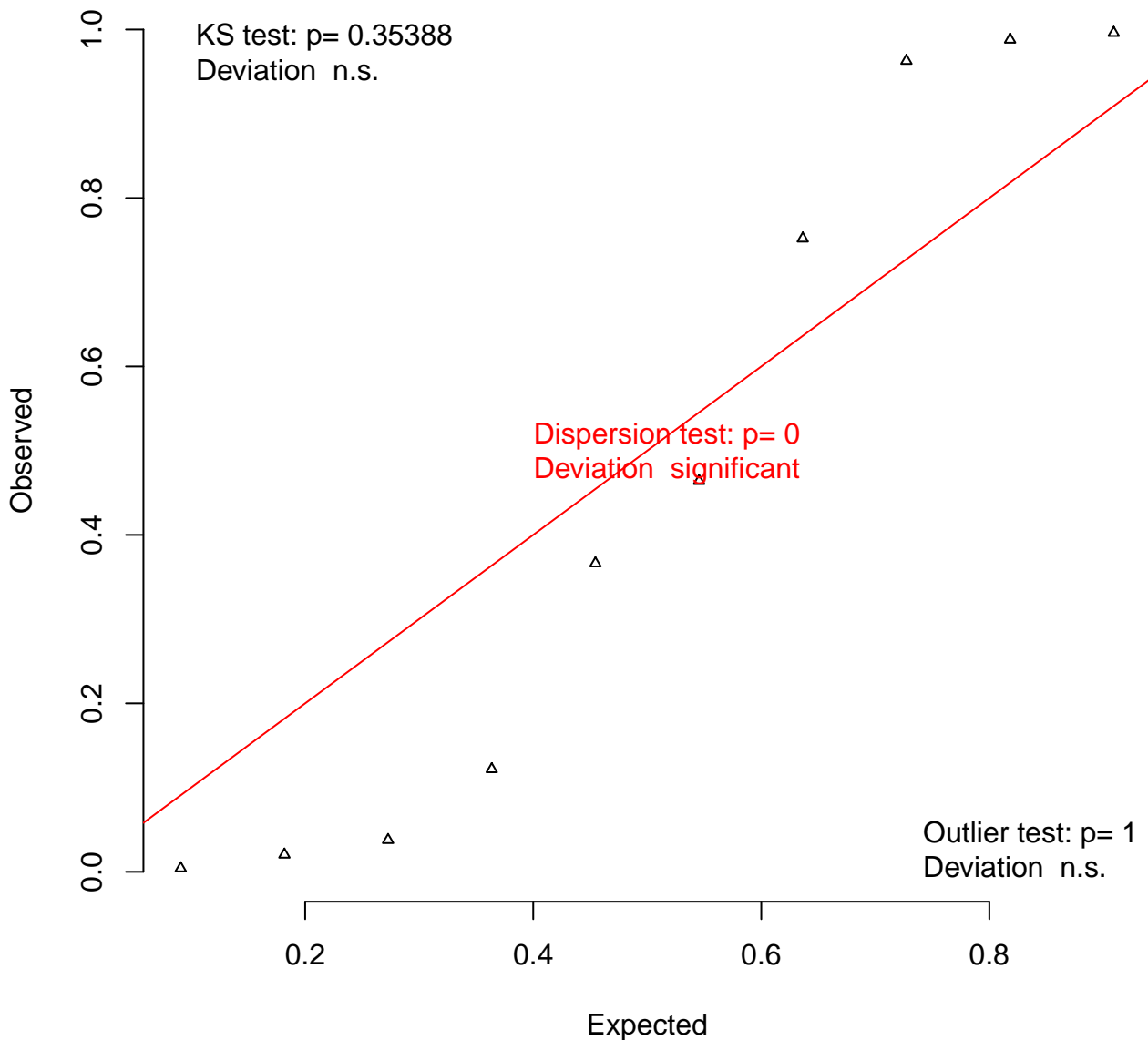
Simulated values, red line = fitted model. p-value (two.sided) = 0.896

DHARMA generic simulation test

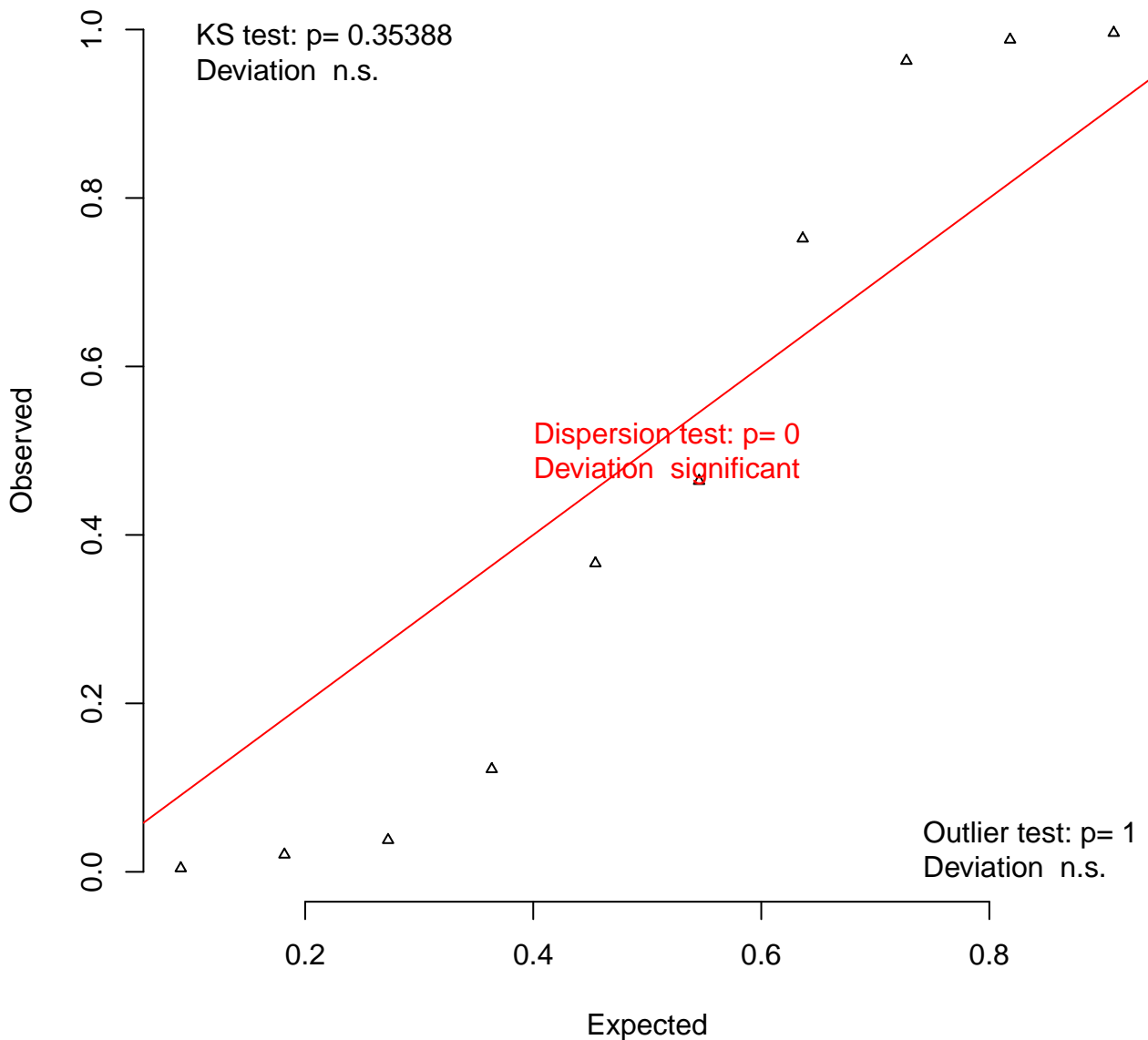


Simulated values, red line = fitted model. p-value (two.sided) = 0.072

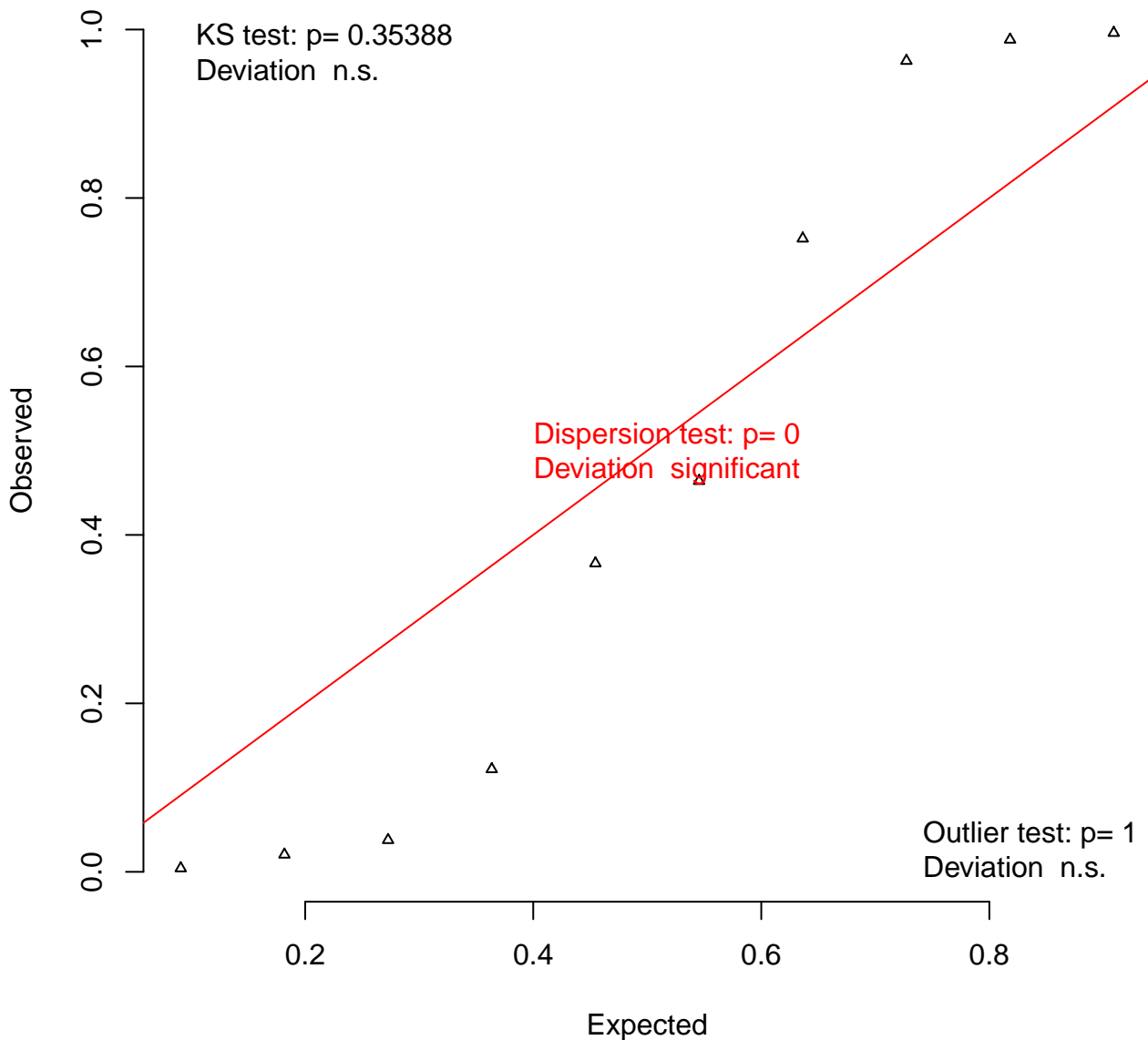
QQ plot residuals



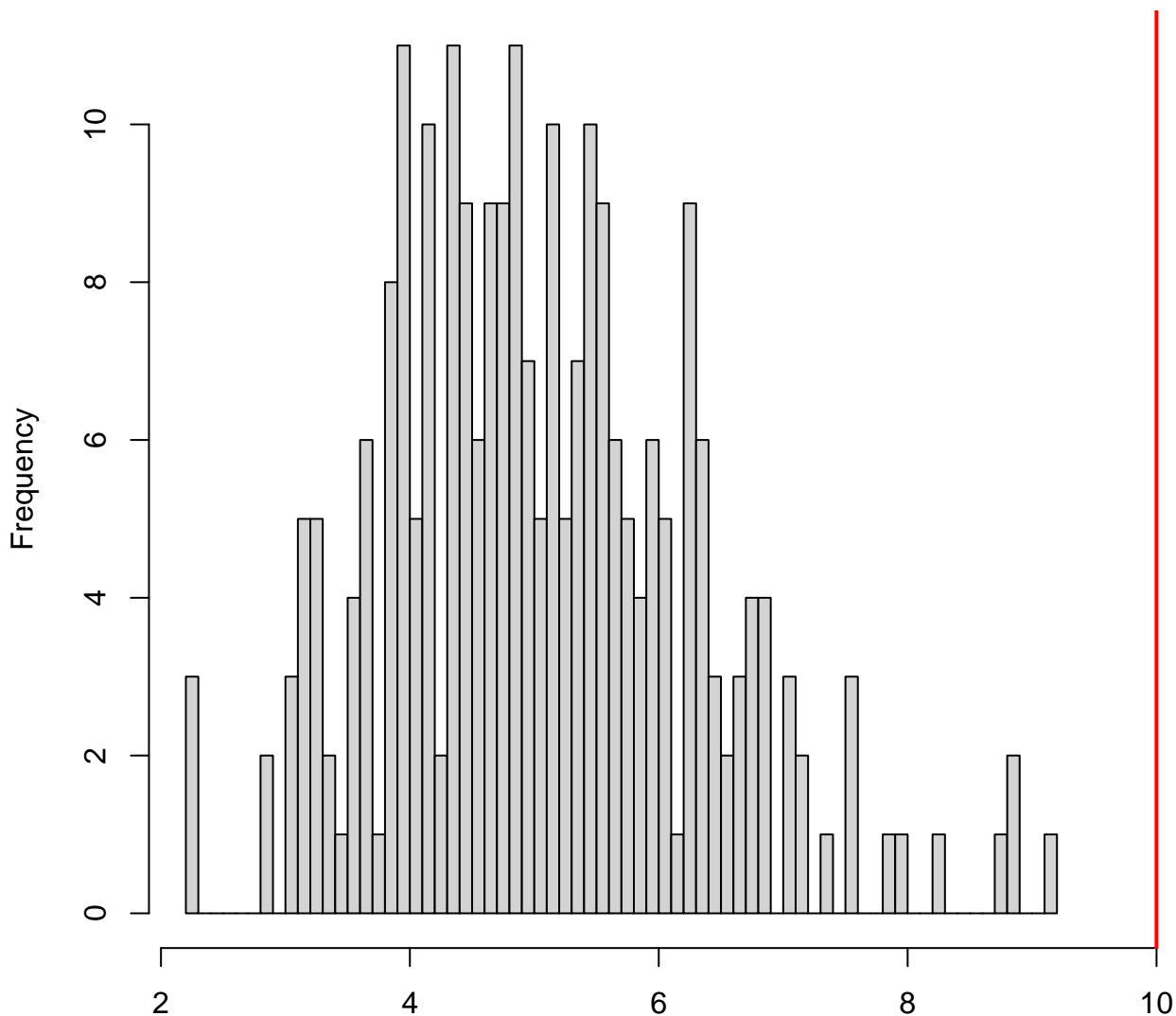
QQ plot residuals



QQ plot residuals

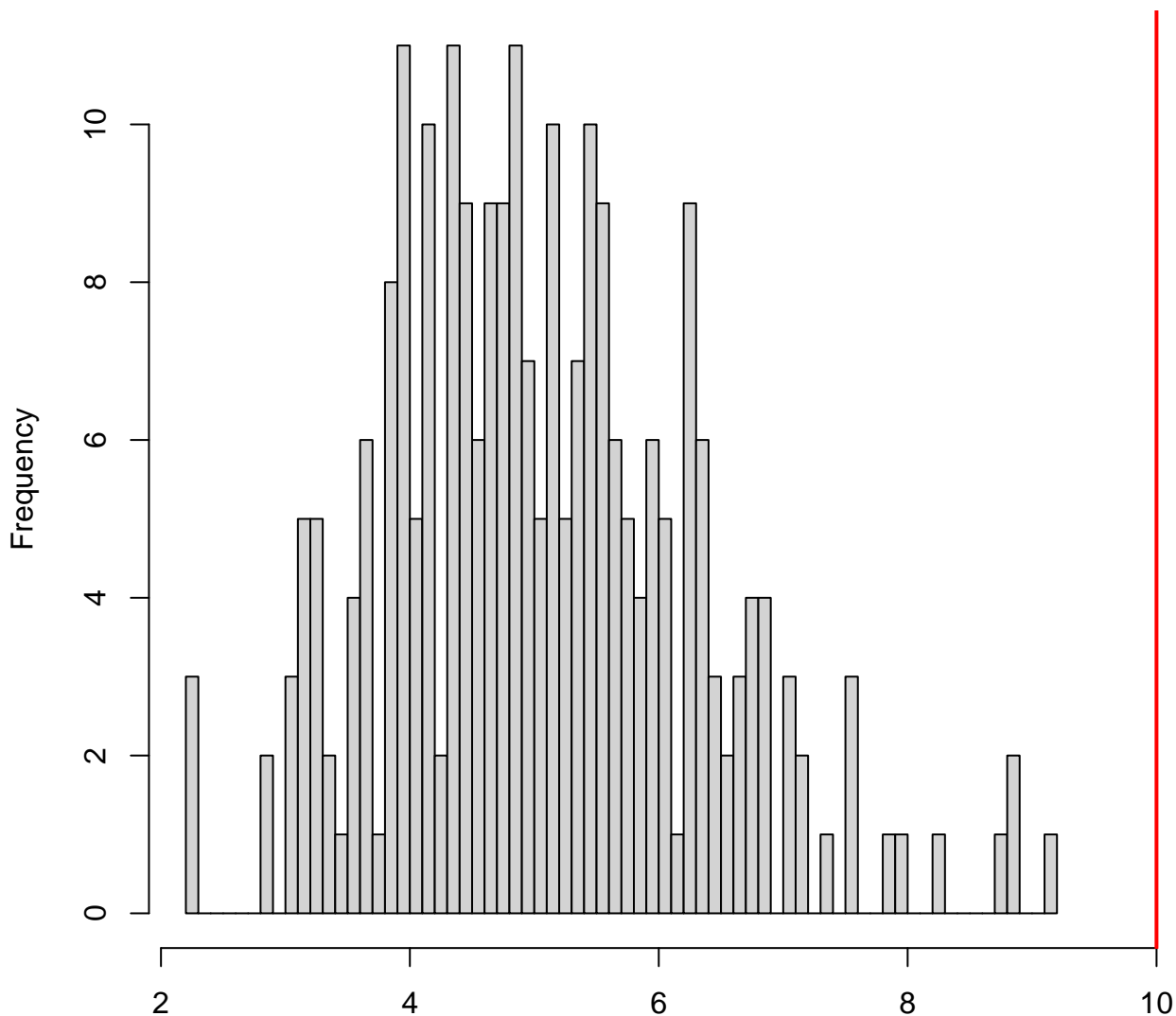


**DHARMa nonparametric dispersion test via sd of
residuals fitted vs. simulated**



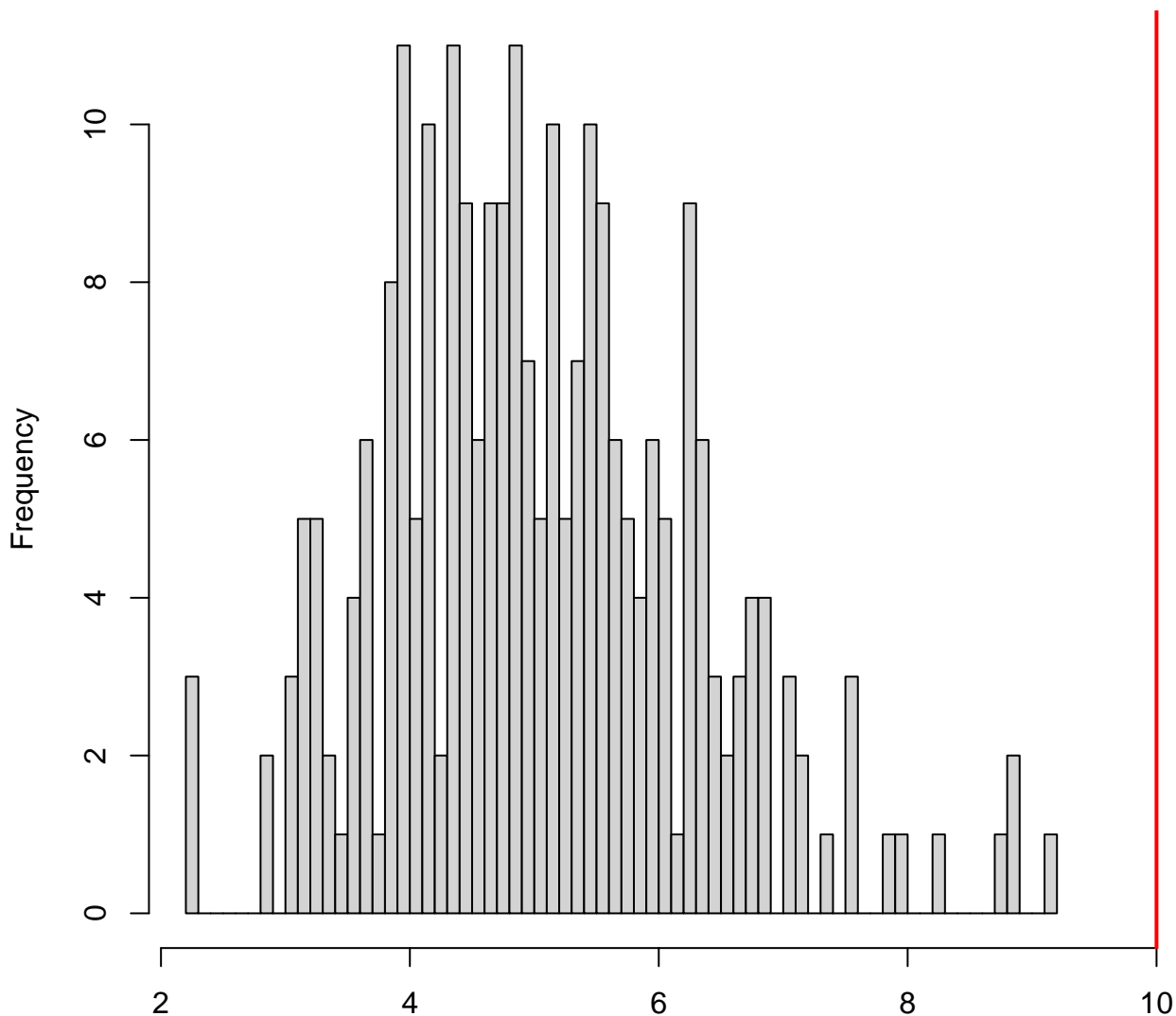
Simulated values, red line = fitted model. p-value (two.sided) = 0

**DHARMa nonparametric dispersion test via sd of
residuals fitted vs. simulated**



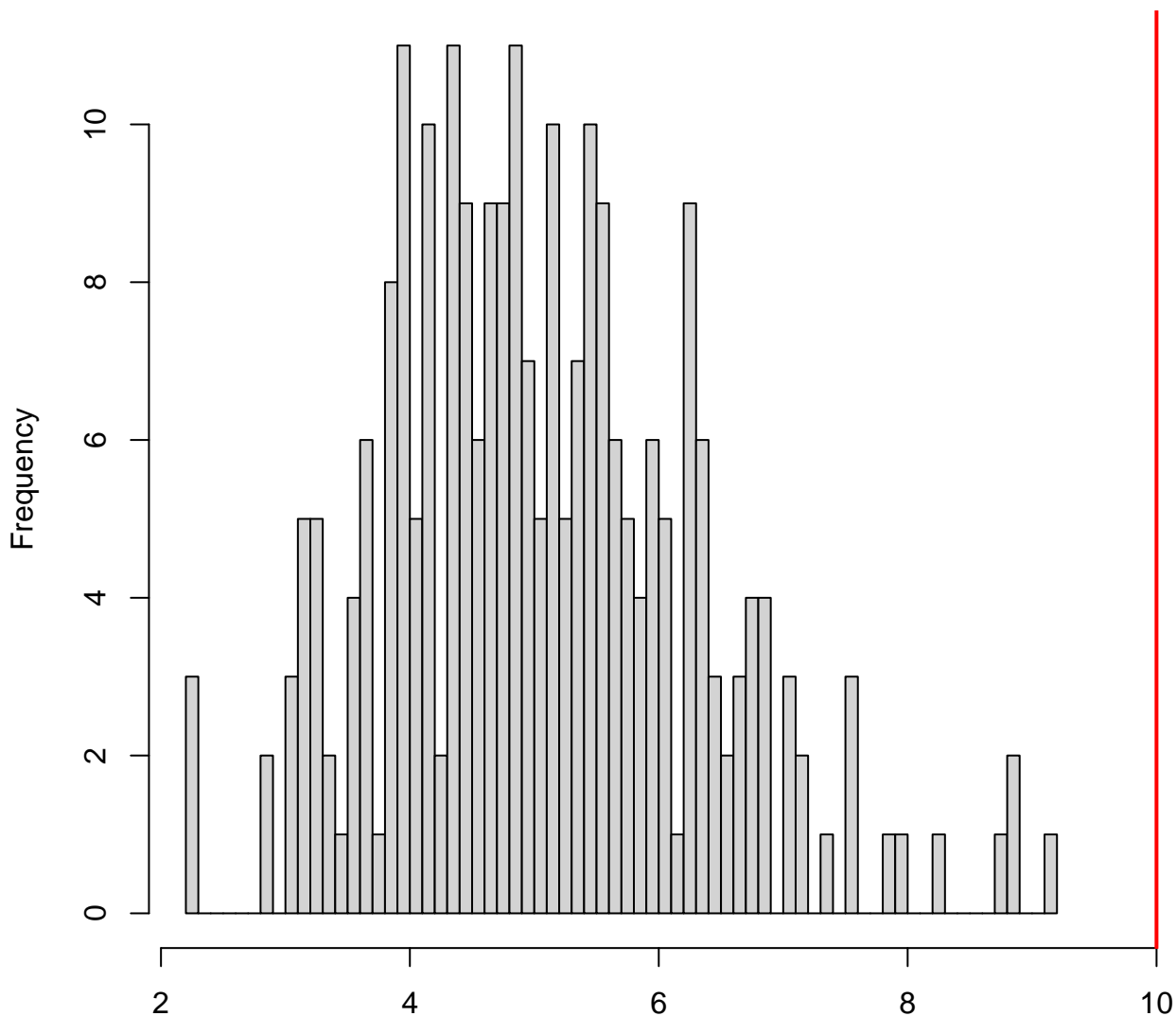
Simulated values, red line = fitted model. p-value (less) = 1

**DHARMa nonparametric dispersion test via sd of
residuals fitted vs. simulated**



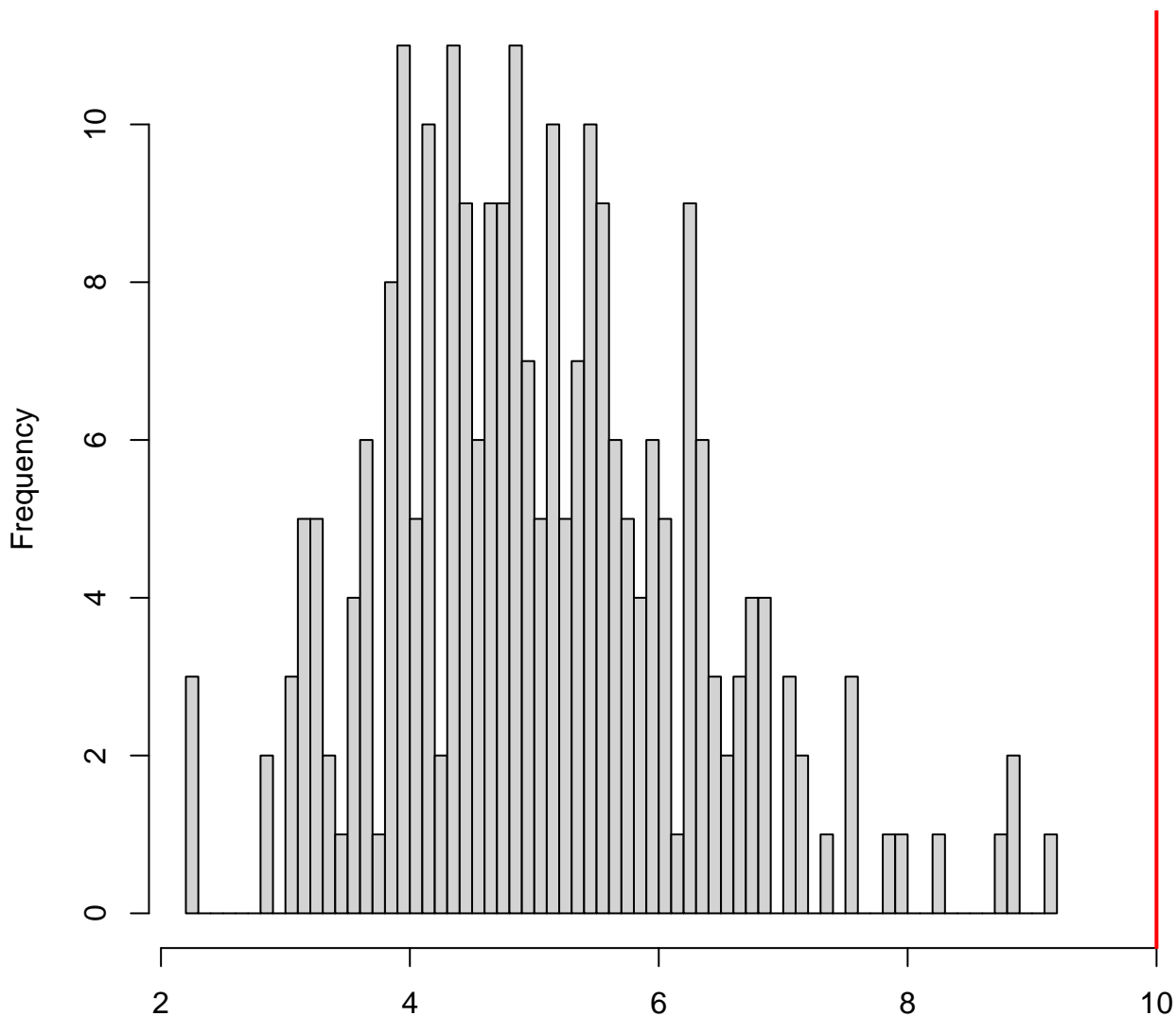
Simulated values, red line = fitted model. p-value (greater) = 0

**DHARMa nonparametric dispersion test via sd of
residuals fitted vs. simulated**



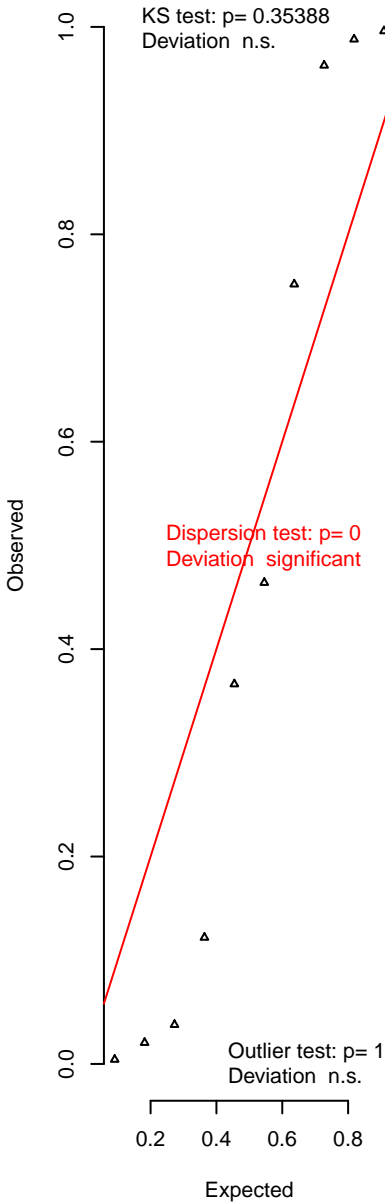
Simulated values, red line = fitted model. p-value (two.sided) = 0

**DHARMa nonparametric dispersion test via sd of
residuals fitted vs. simulated**

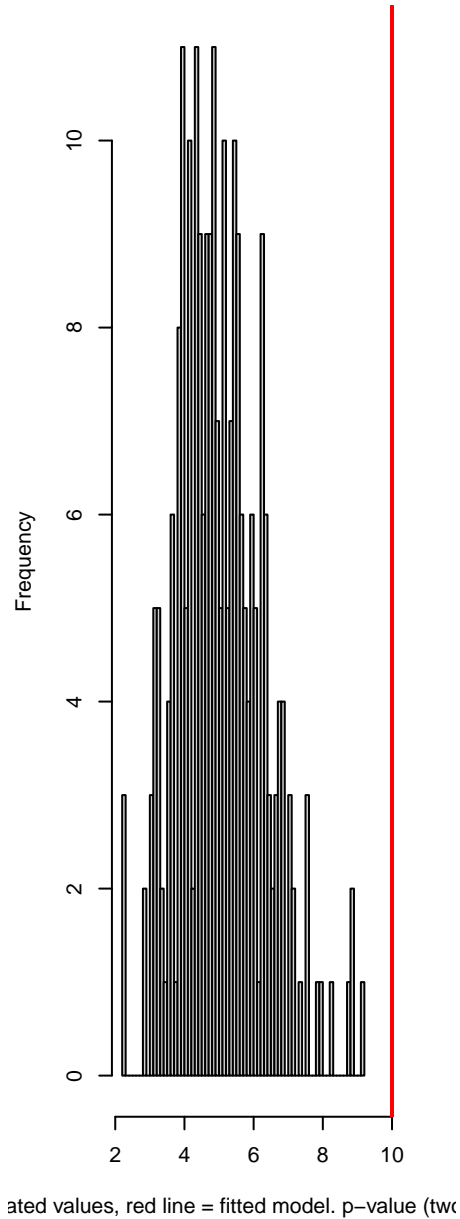


Simulated values, red line = fitted model. p-value (two.sided) = 0

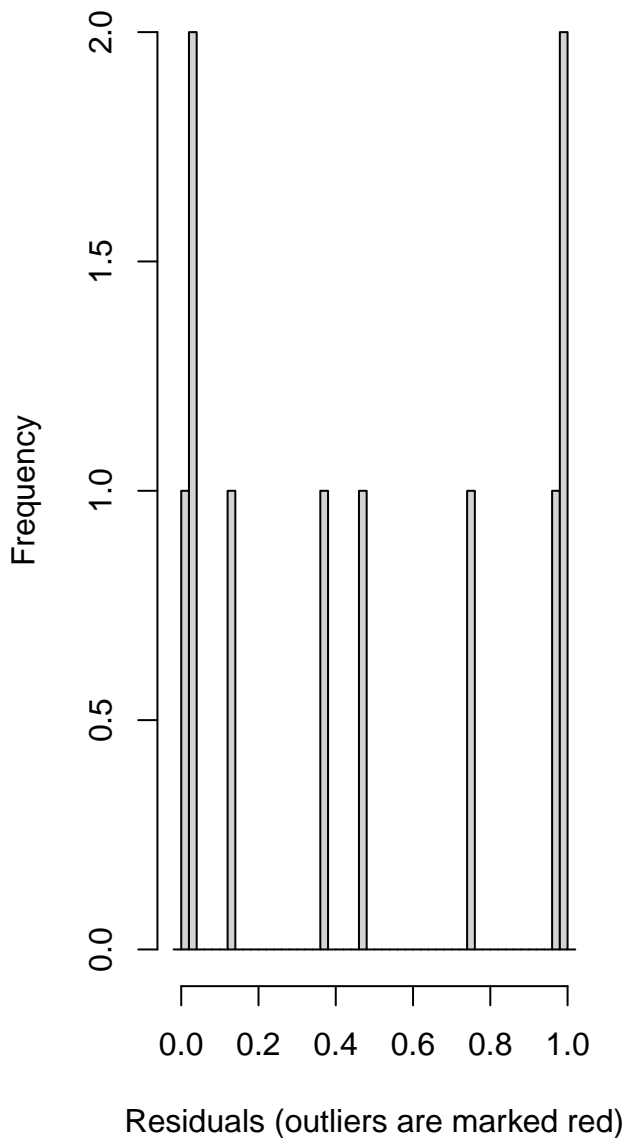
QQ plot residuals



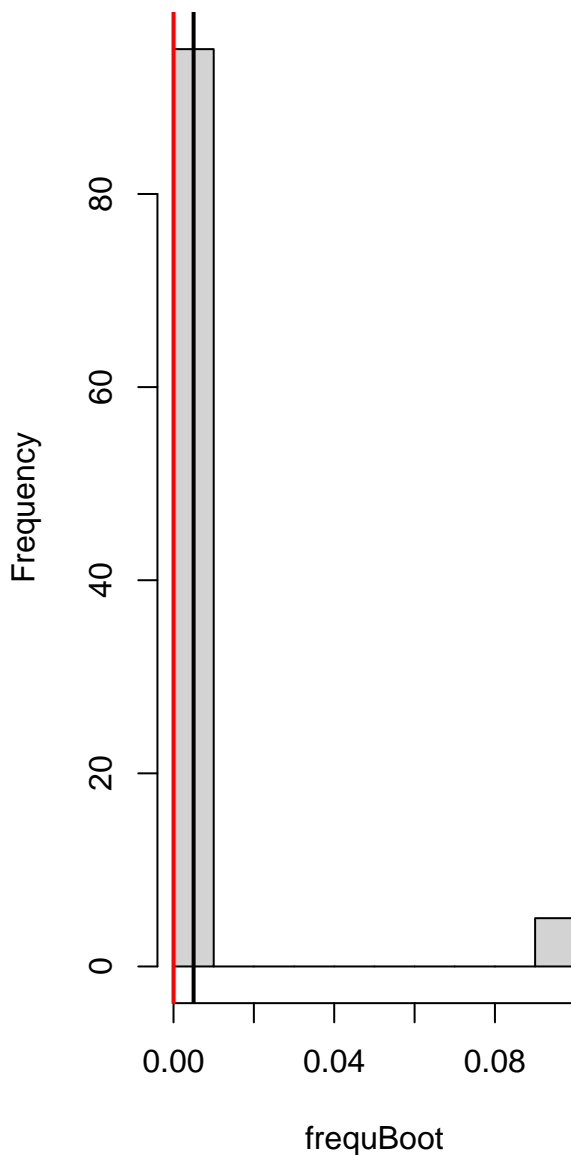
DHARMA nonparametric dispersion test via sd of
residuals fitted vs. simulated



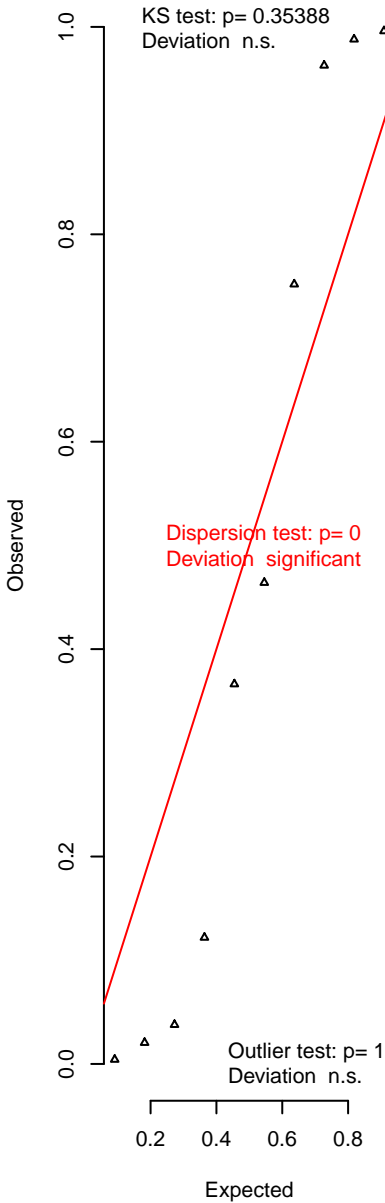
Outlier test n.s.



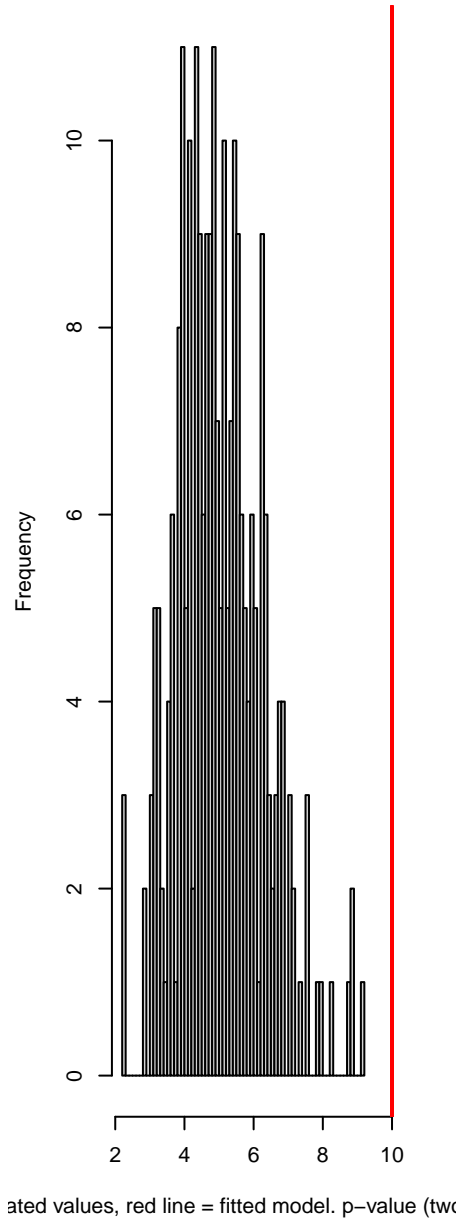
Histogram of frequBoot



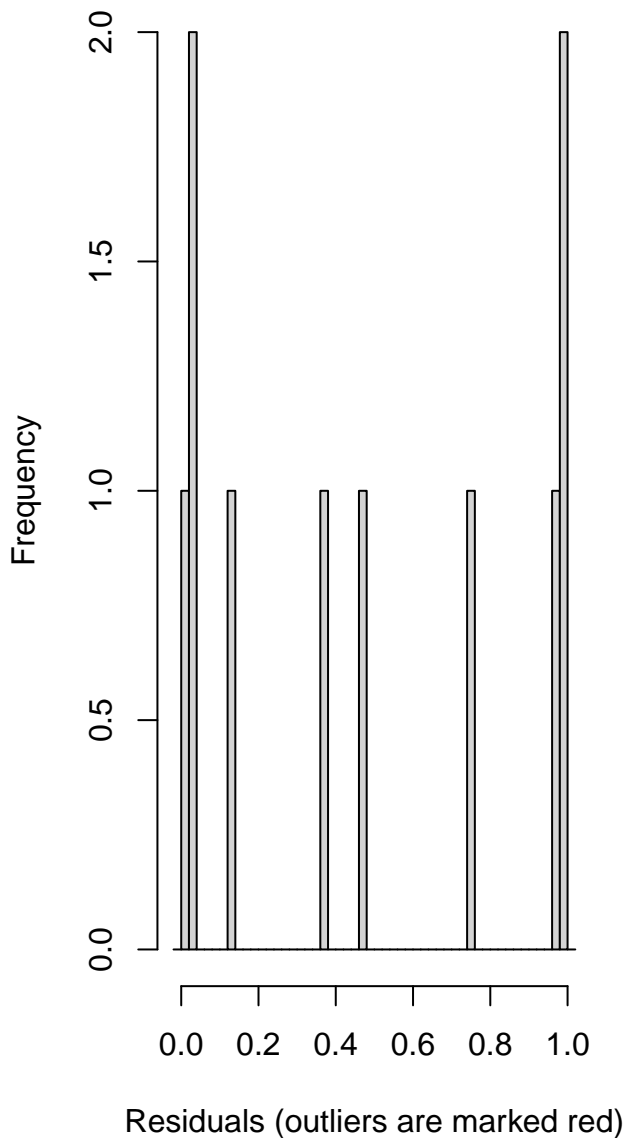
QQ plot residuals



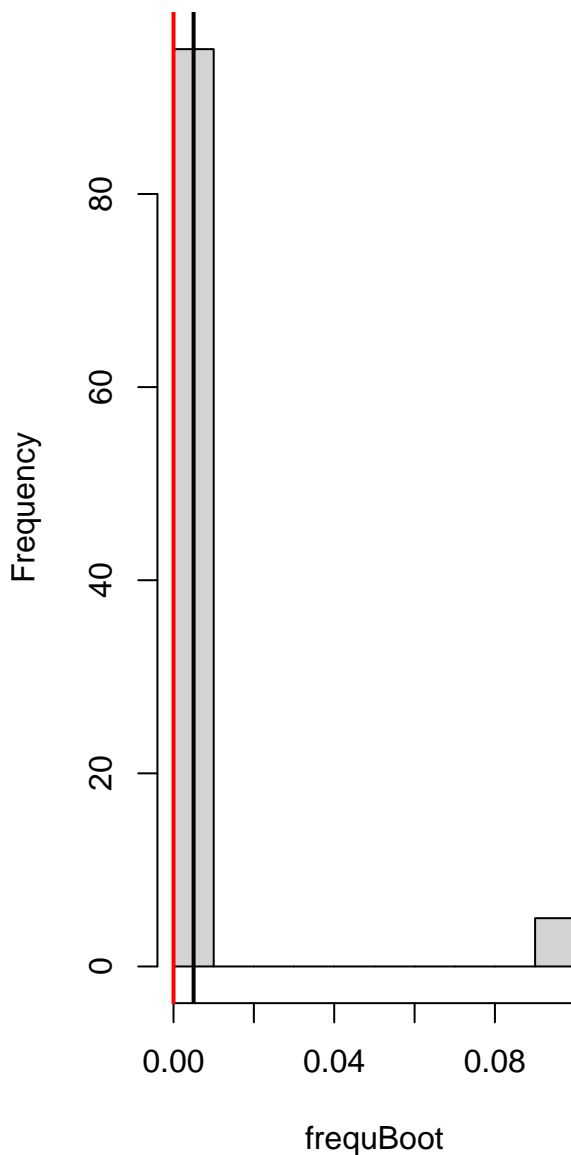
DHARMA nonparametric dispersion test via sd of residuals fitted vs. simulated



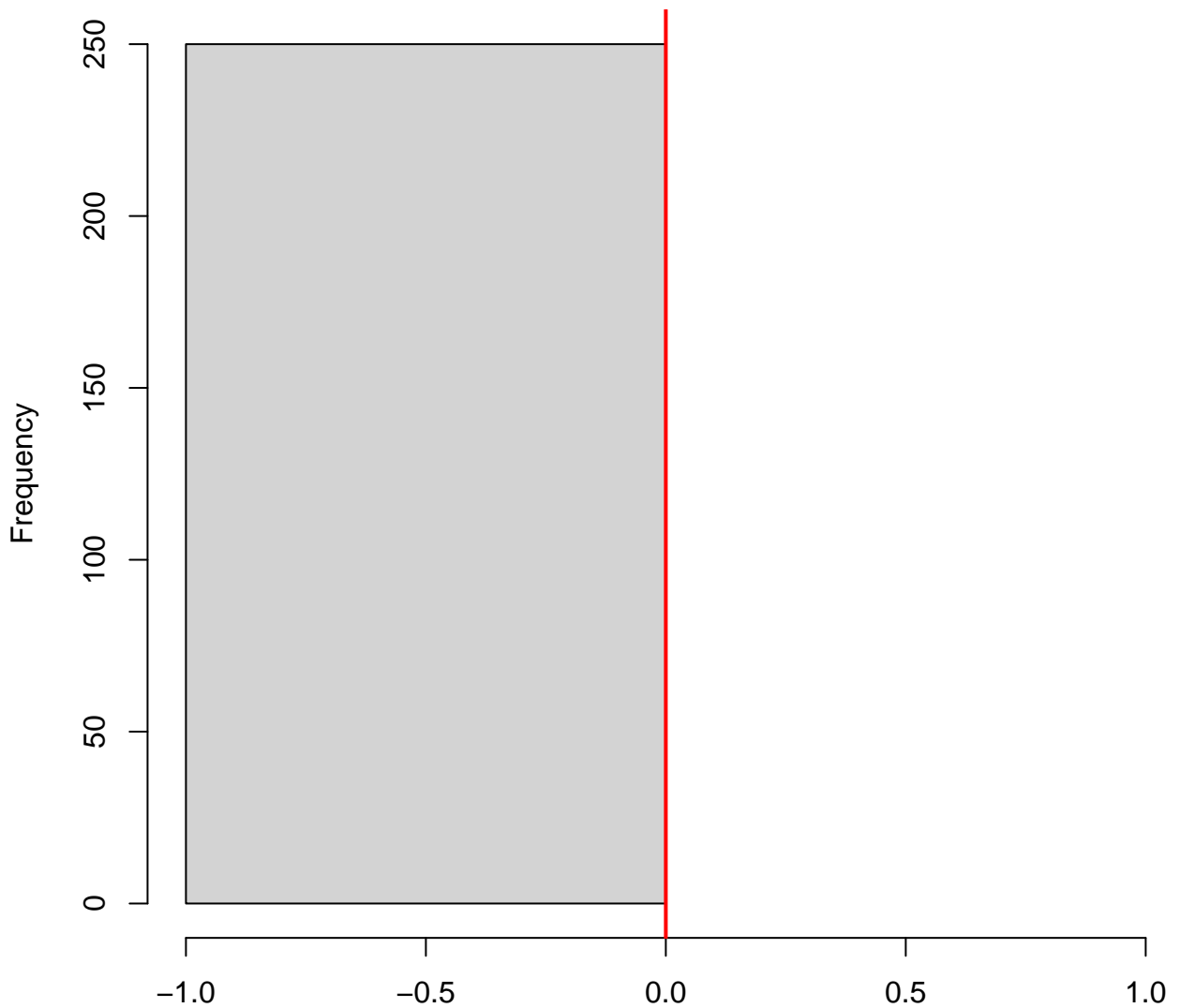
Outlier test n.s.



Histogram of frequBoot

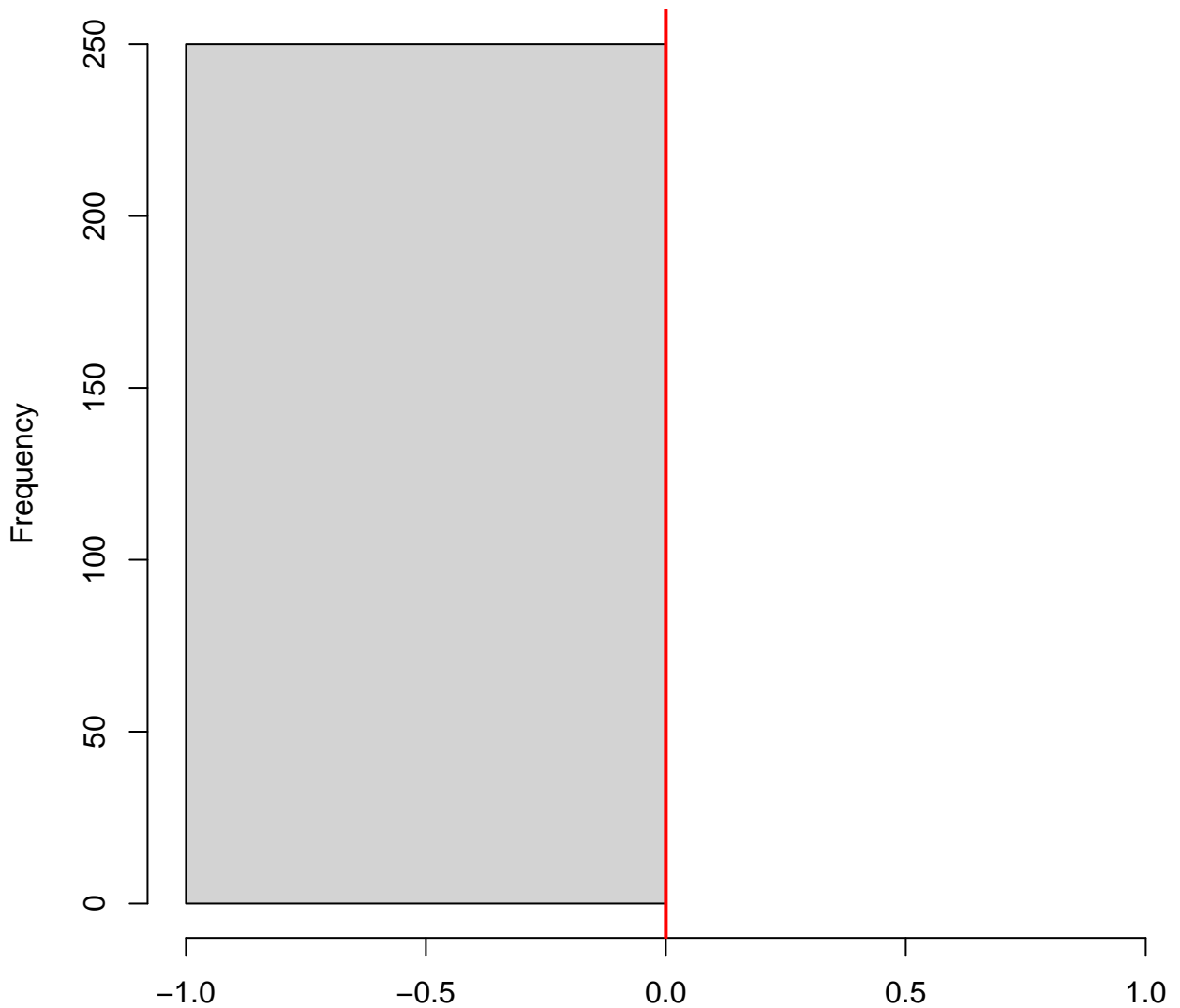


**DHARMa zero-inflation test via comparison to
expected zeros with simulation under H_0 = fitted
model**



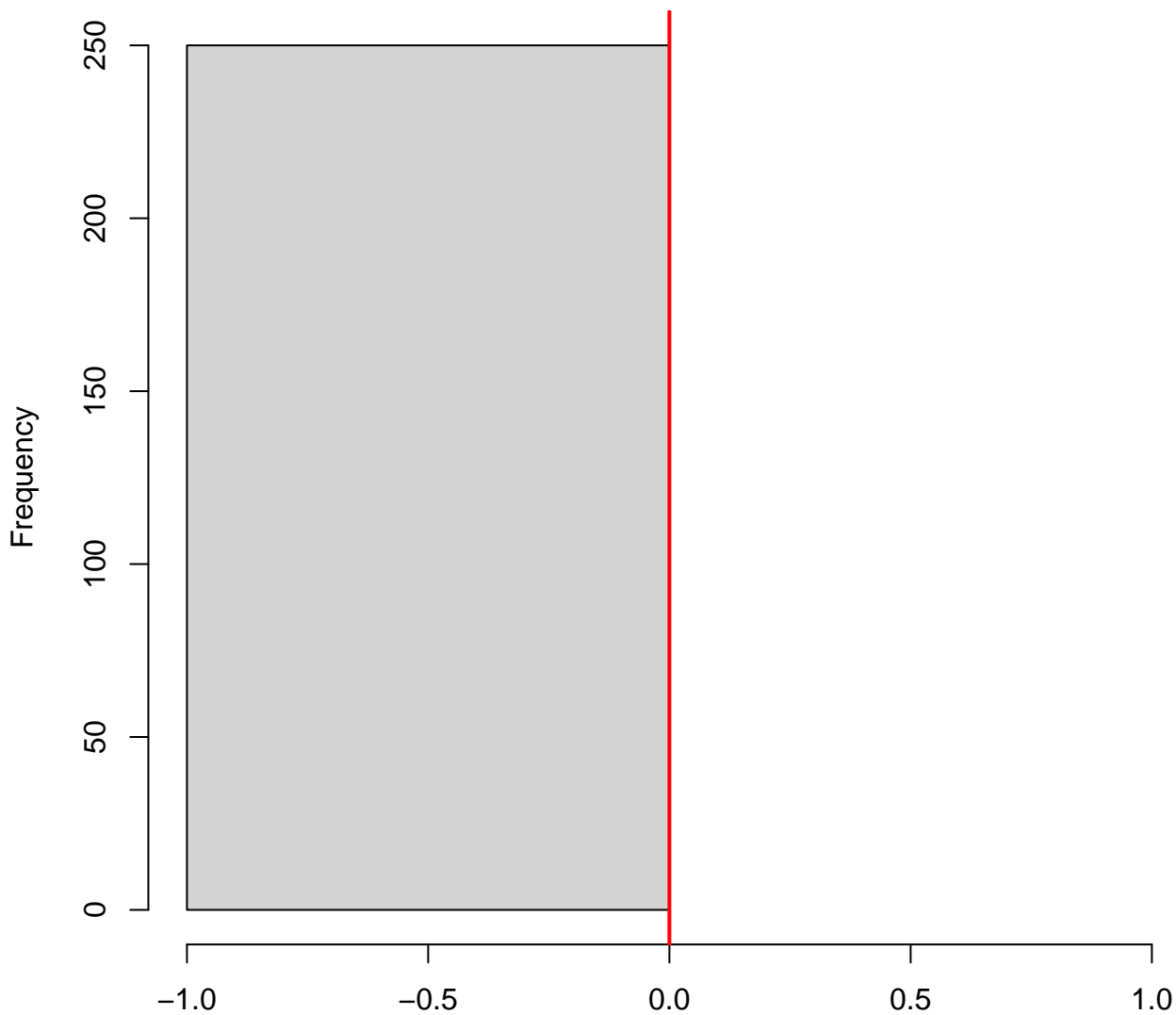
Simulated values, red line = fitted model. p-value (two.sided) = 1

**DHARMa zero-inflation test via comparison to
expected zeros with simulation under H_0 = fitted
model**



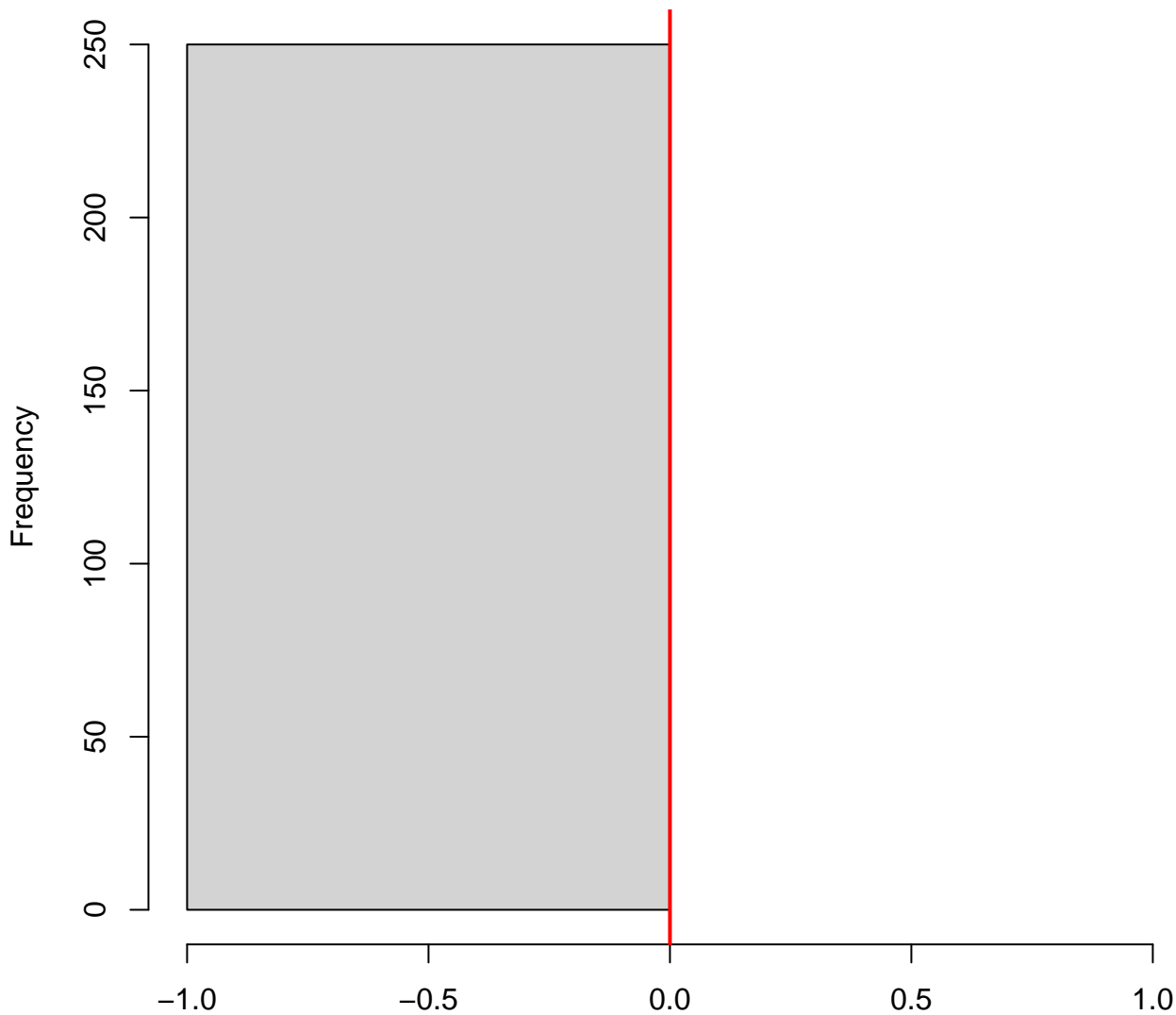
Simulated values, red line = fitted model. p-value (less) = 1

DHARMa generic simulation test



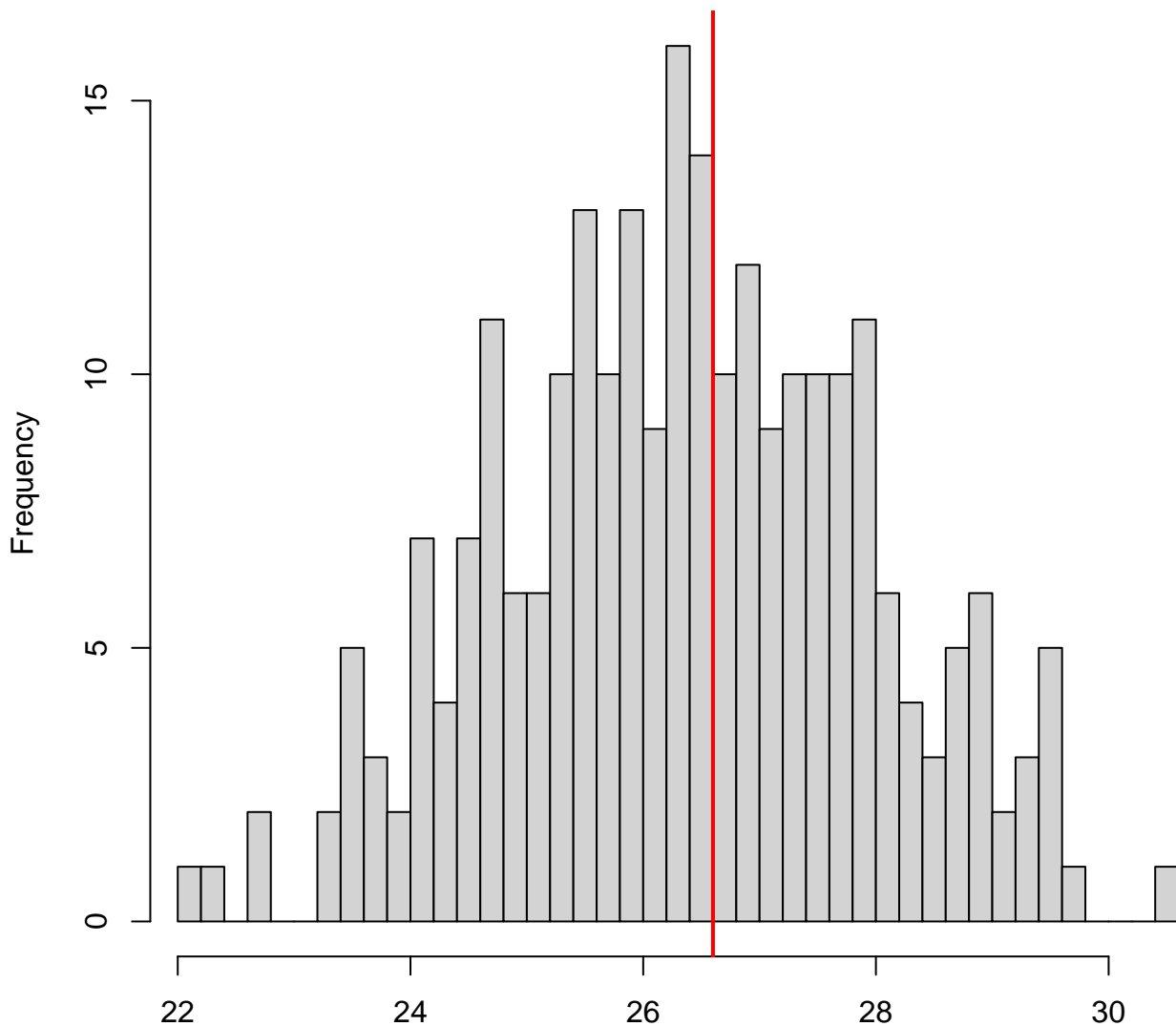
Simulated values, red line = fitted model. p-value (two.sided) = 1

DHARMa generic simulation test



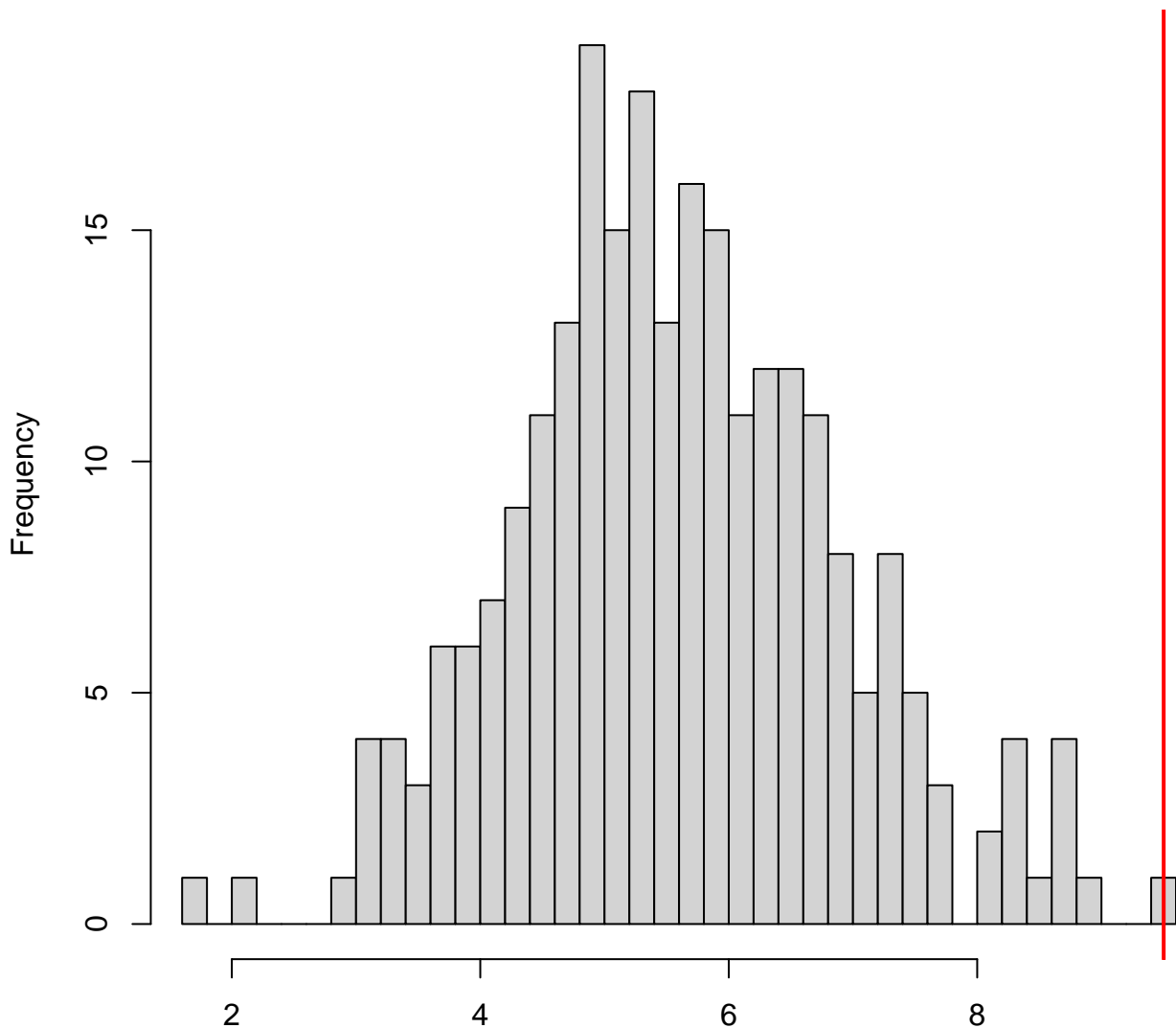
Simulated values, red line = fitted model. p-value (less) = 1

DHARMa generic simulation test



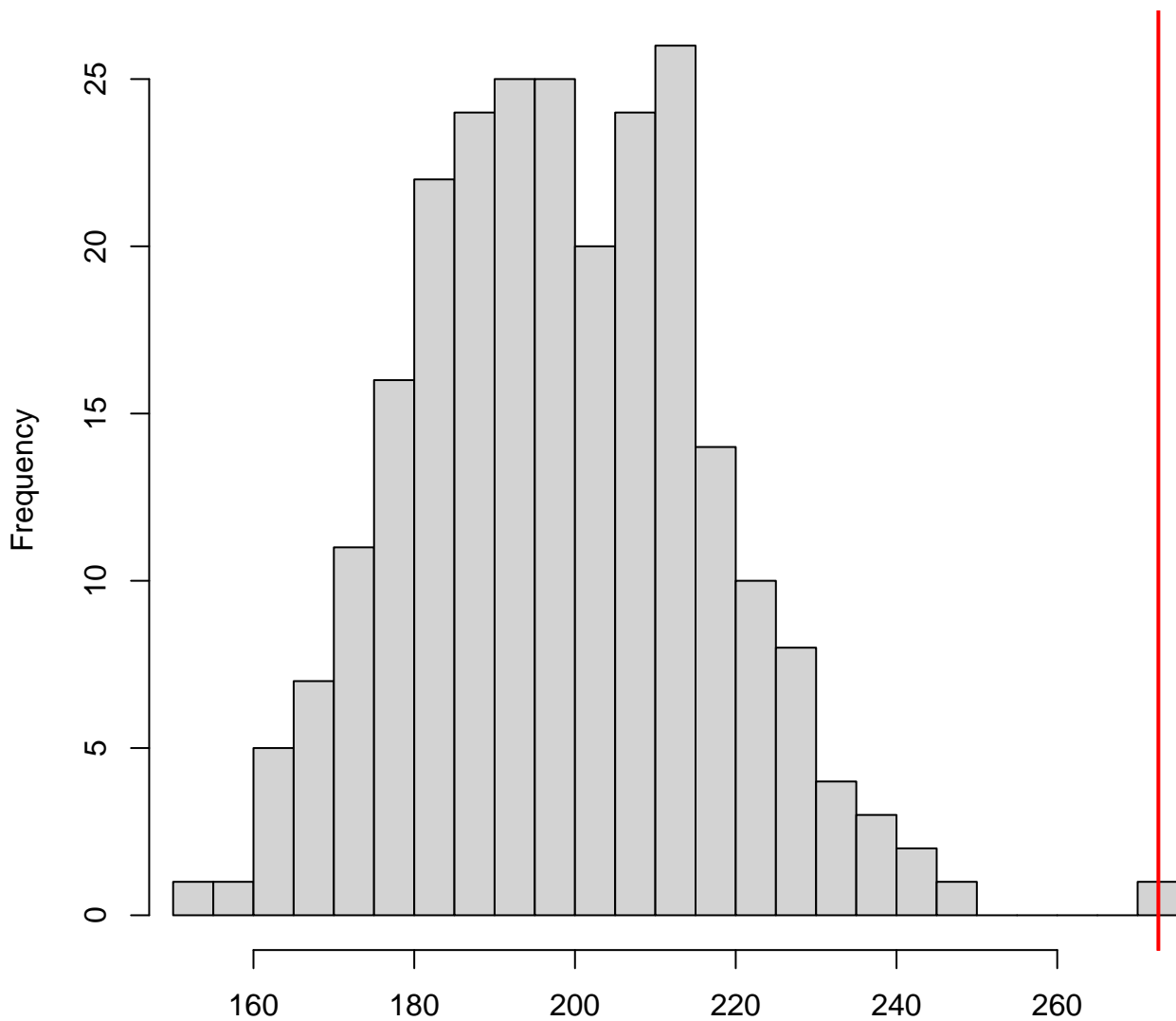
Simulated values, red line = fitted model. p-value (two.sided) = 0.896

DHARMa generic simulation test



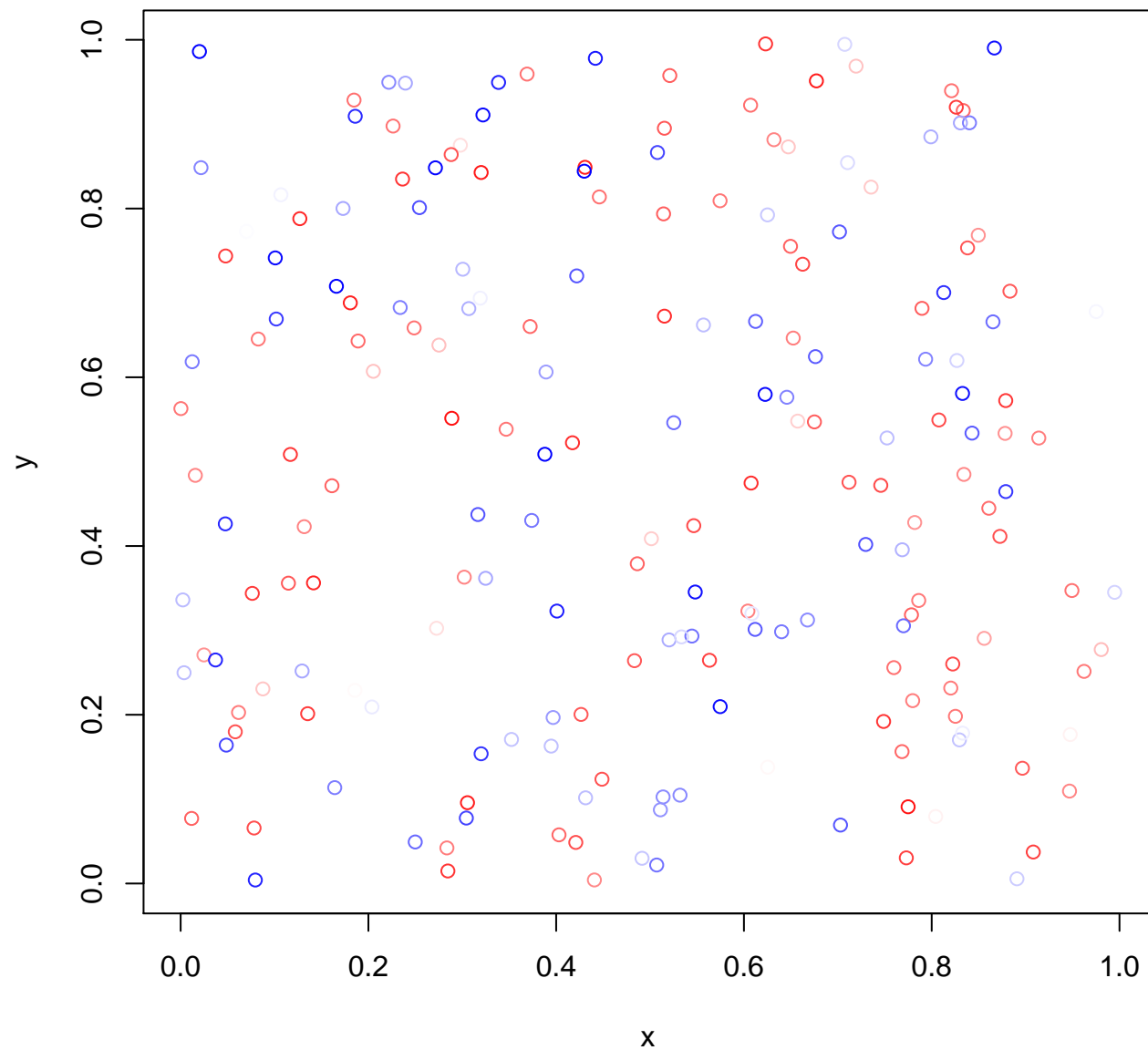
Simulated values, red line = fitted model. p-value (two.sided) = 0.008

Dispersion test significant

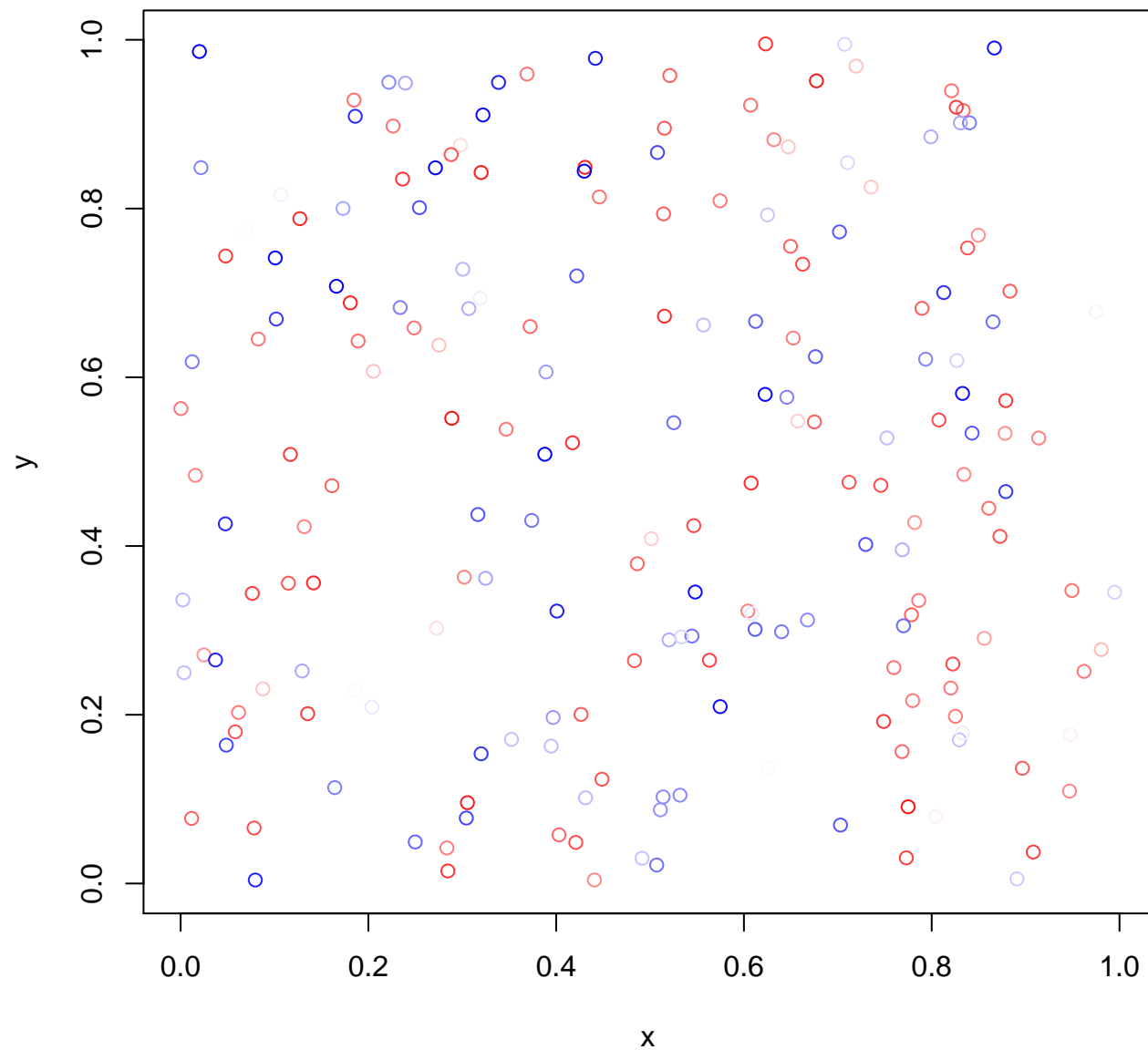


Simulated values, red line = fitted model. p-value (two.sided) = 0

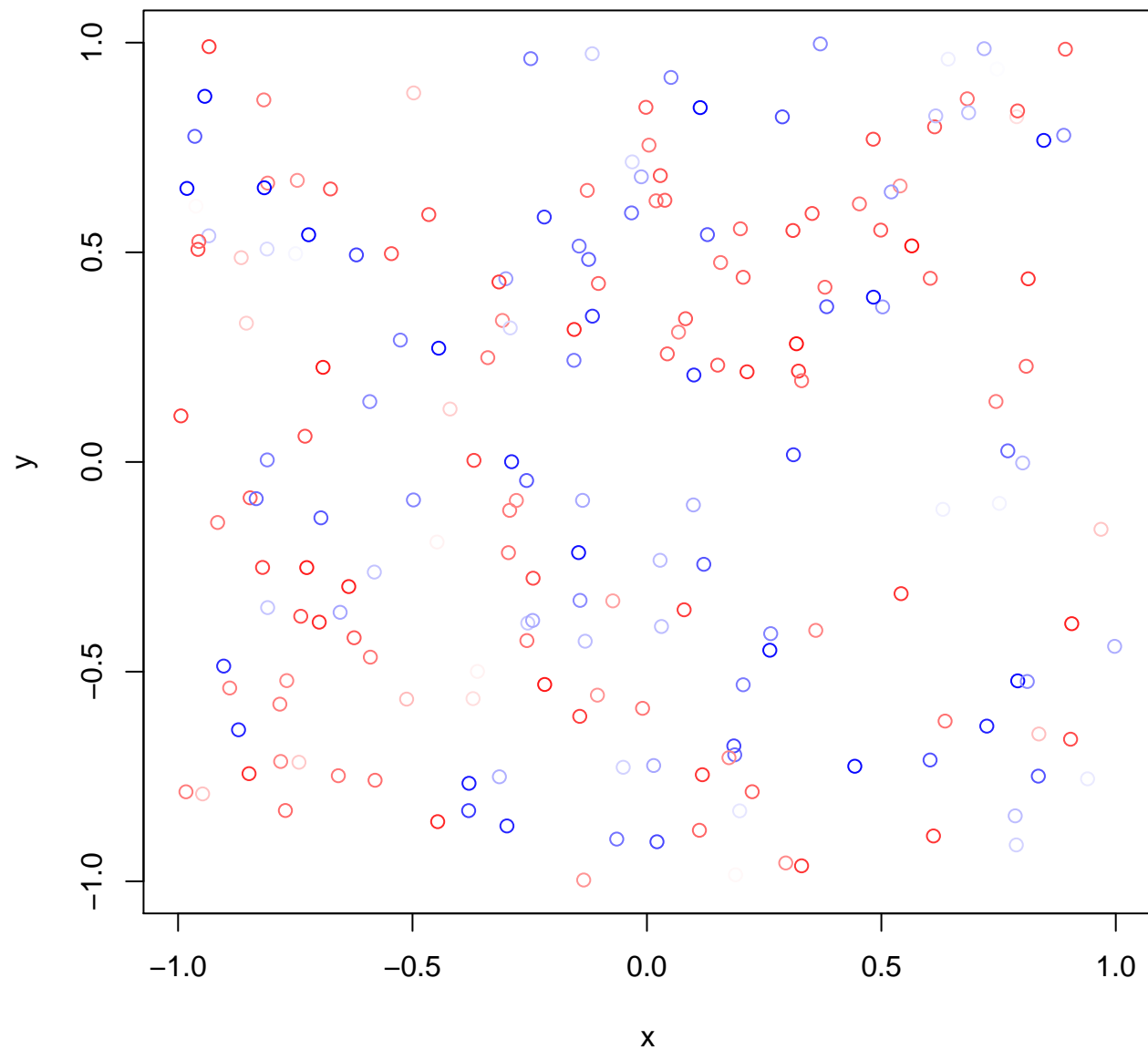
DHARMA Moran's I test for spatial autocorrelation



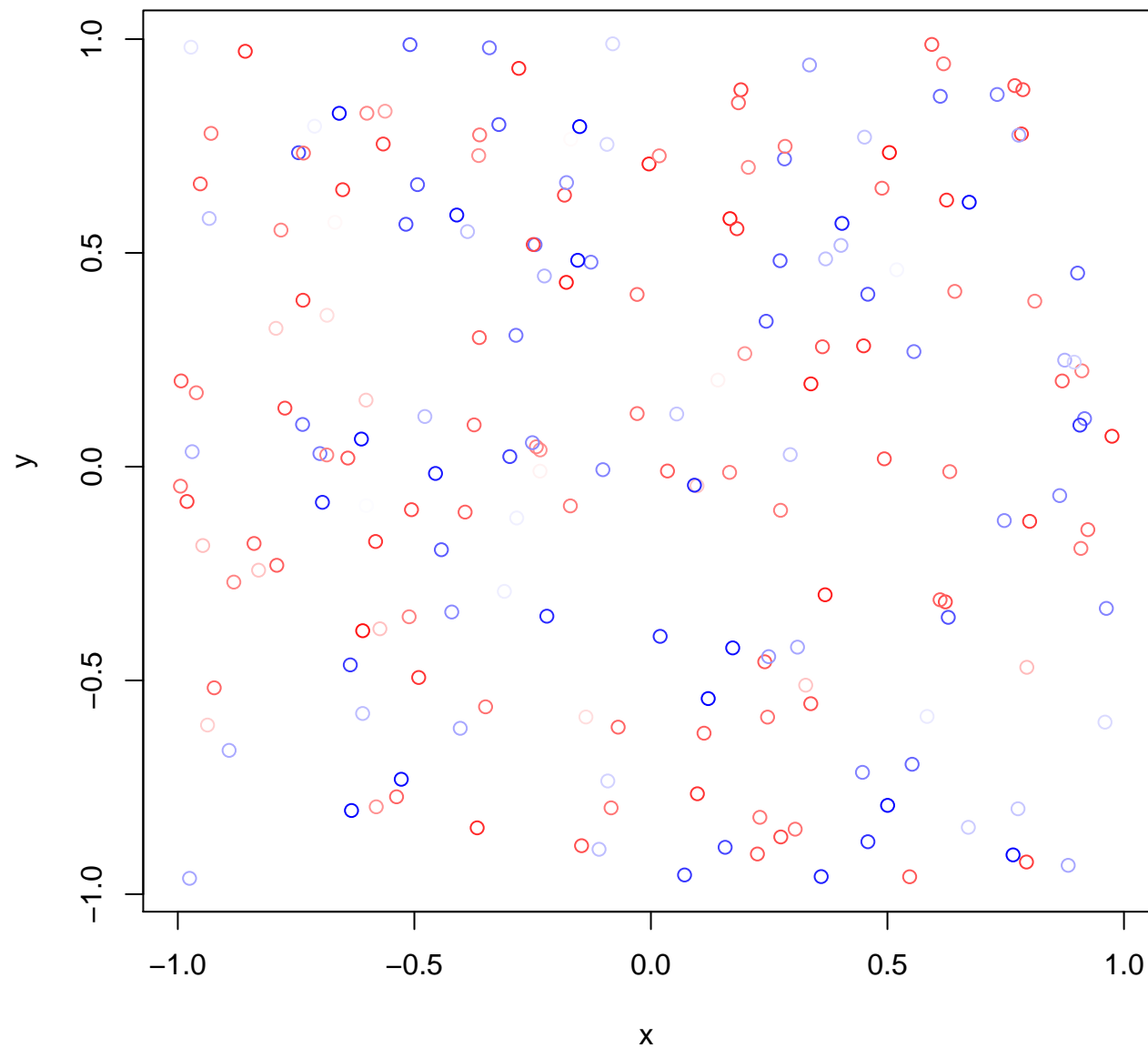
DHARMA Moran's I test for spatial autocorrelation



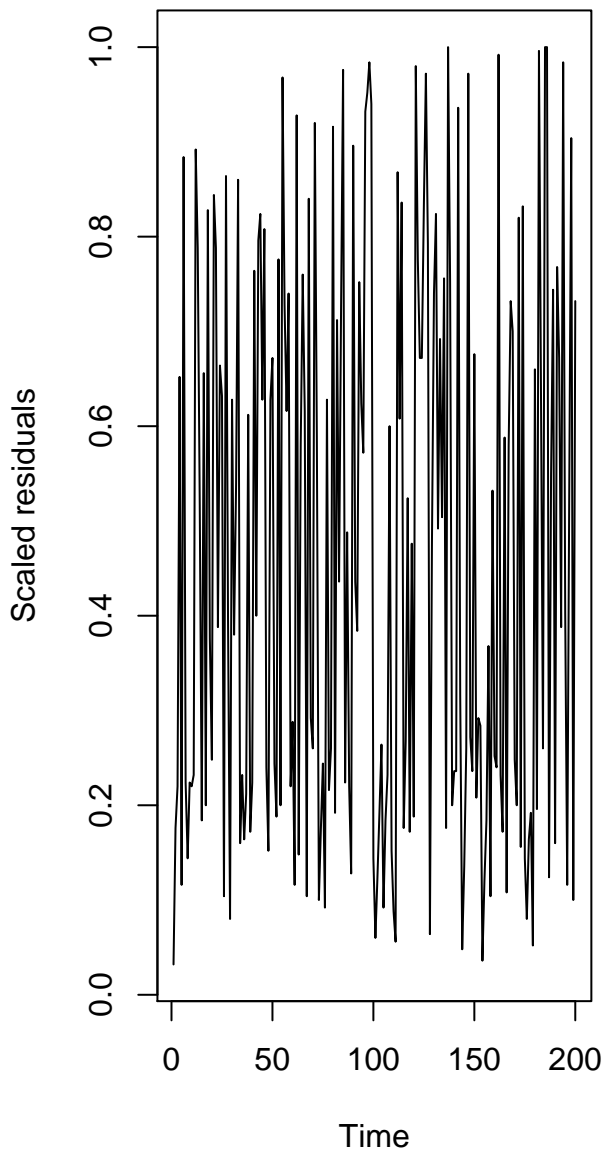
DHARMA Moran's I test for spatial autocorrelation



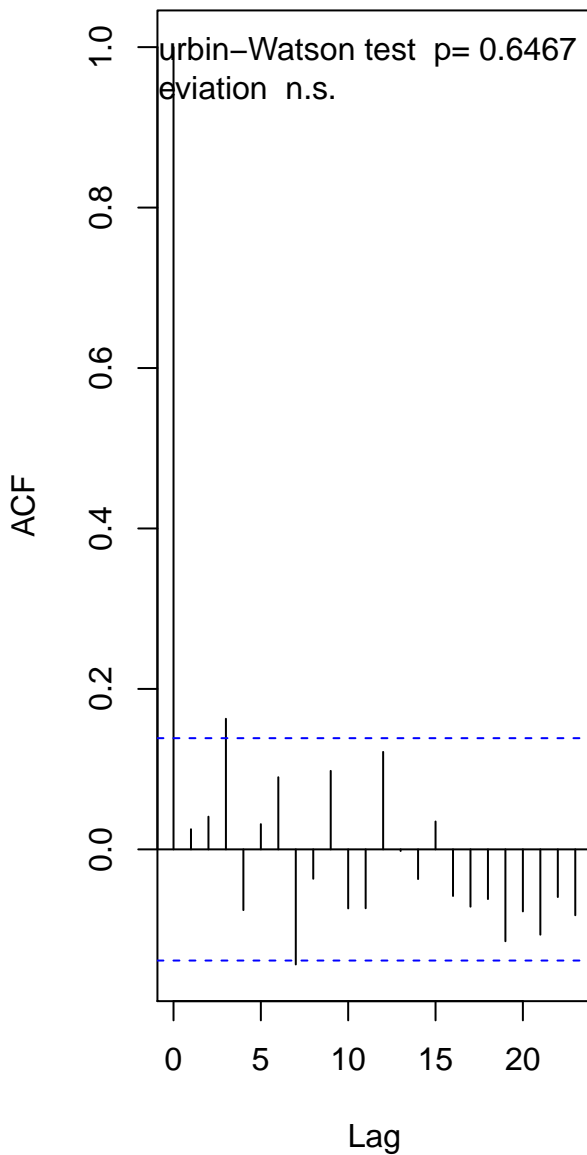
DHARMA Moran's I test for spatial autocorrelation



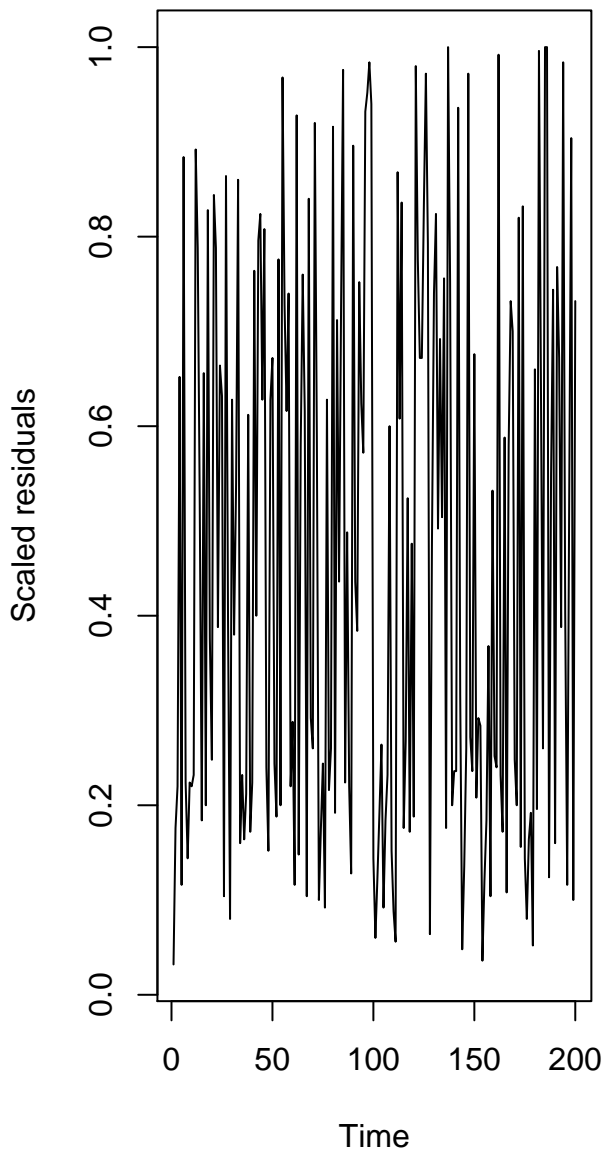
Residuals vs. time



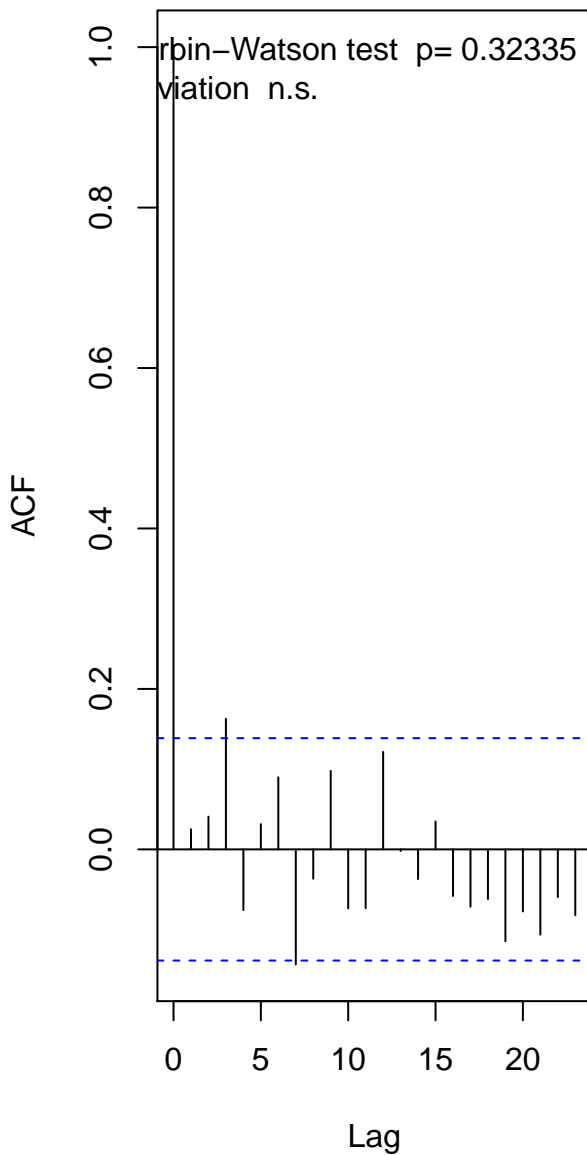
Autocorrelation



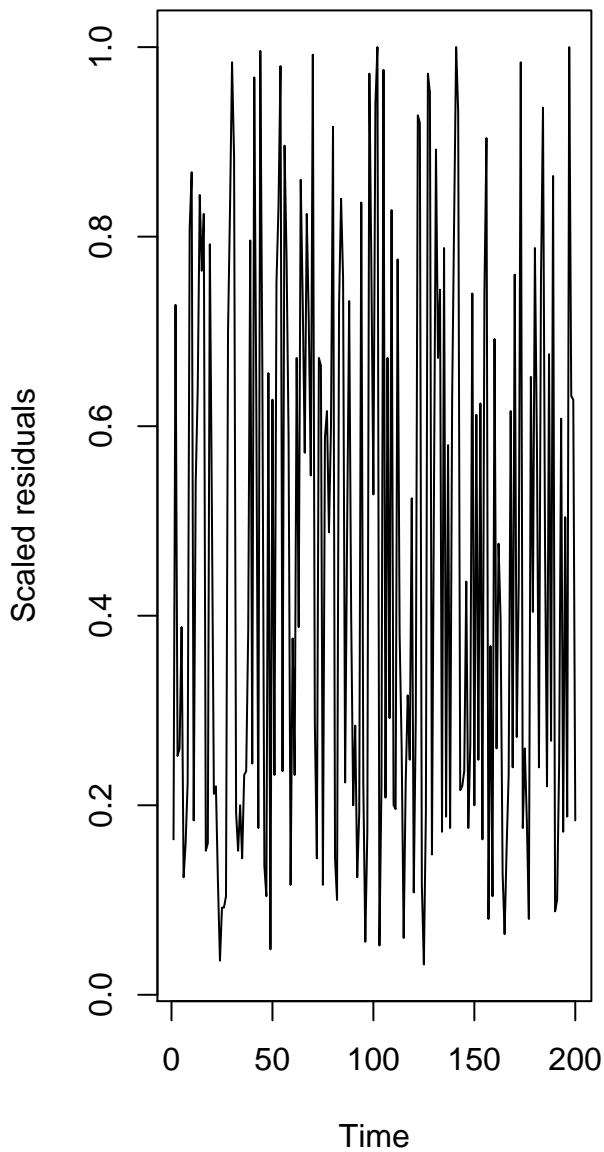
Residuals vs. time



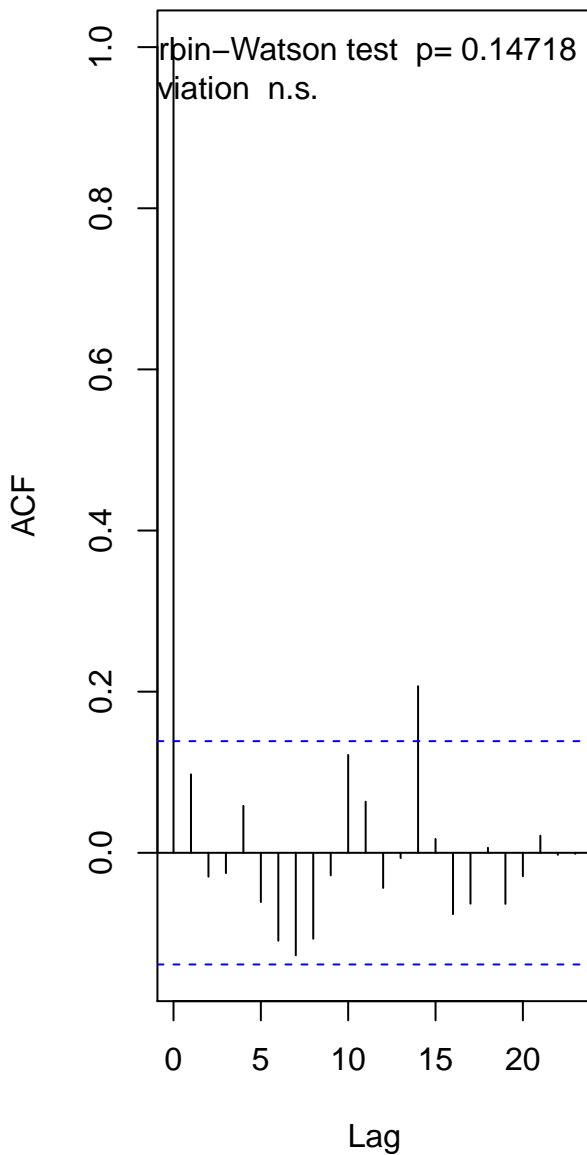
Autocorrelation



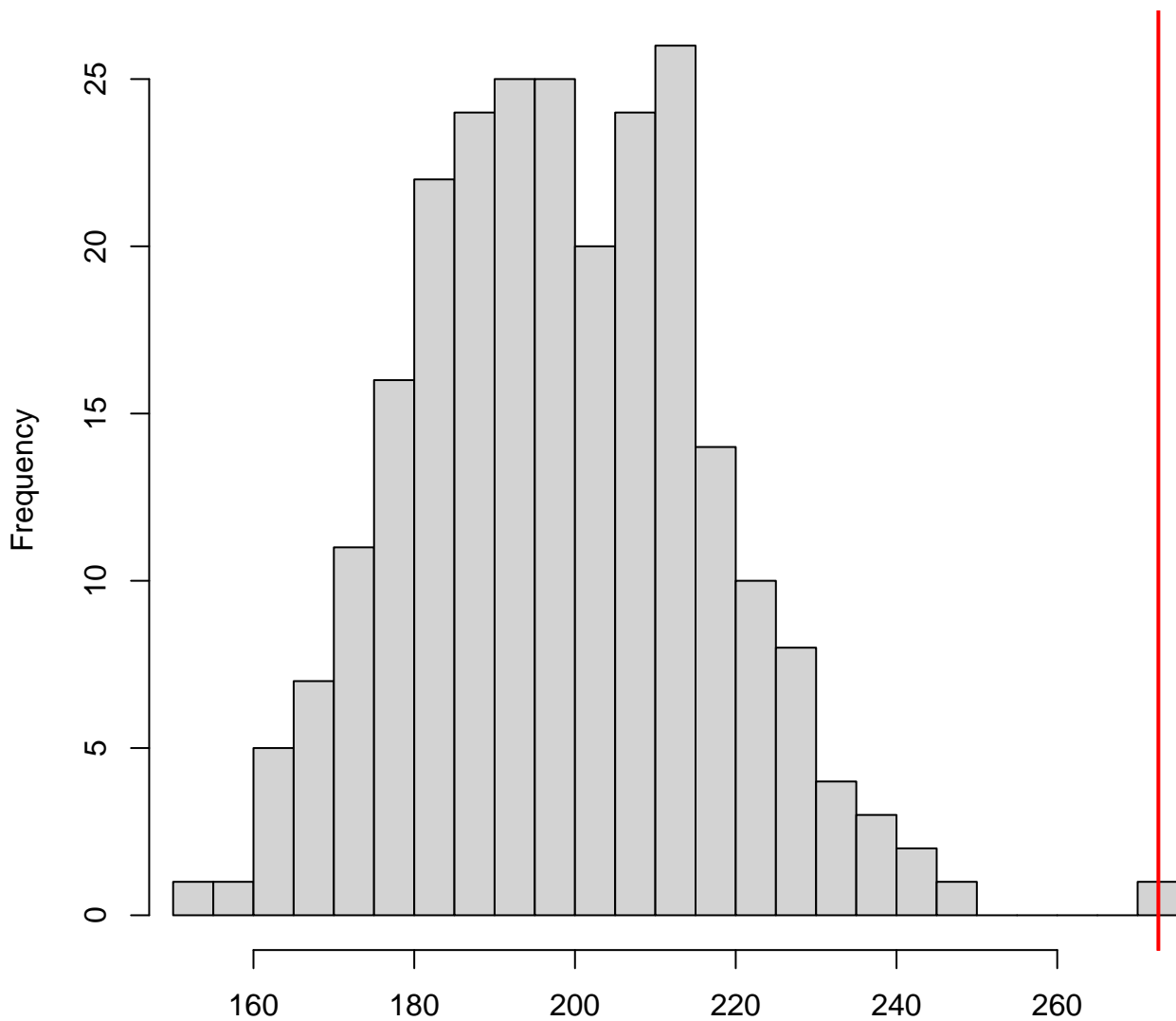
Residuals vs. time



Autocorrelation

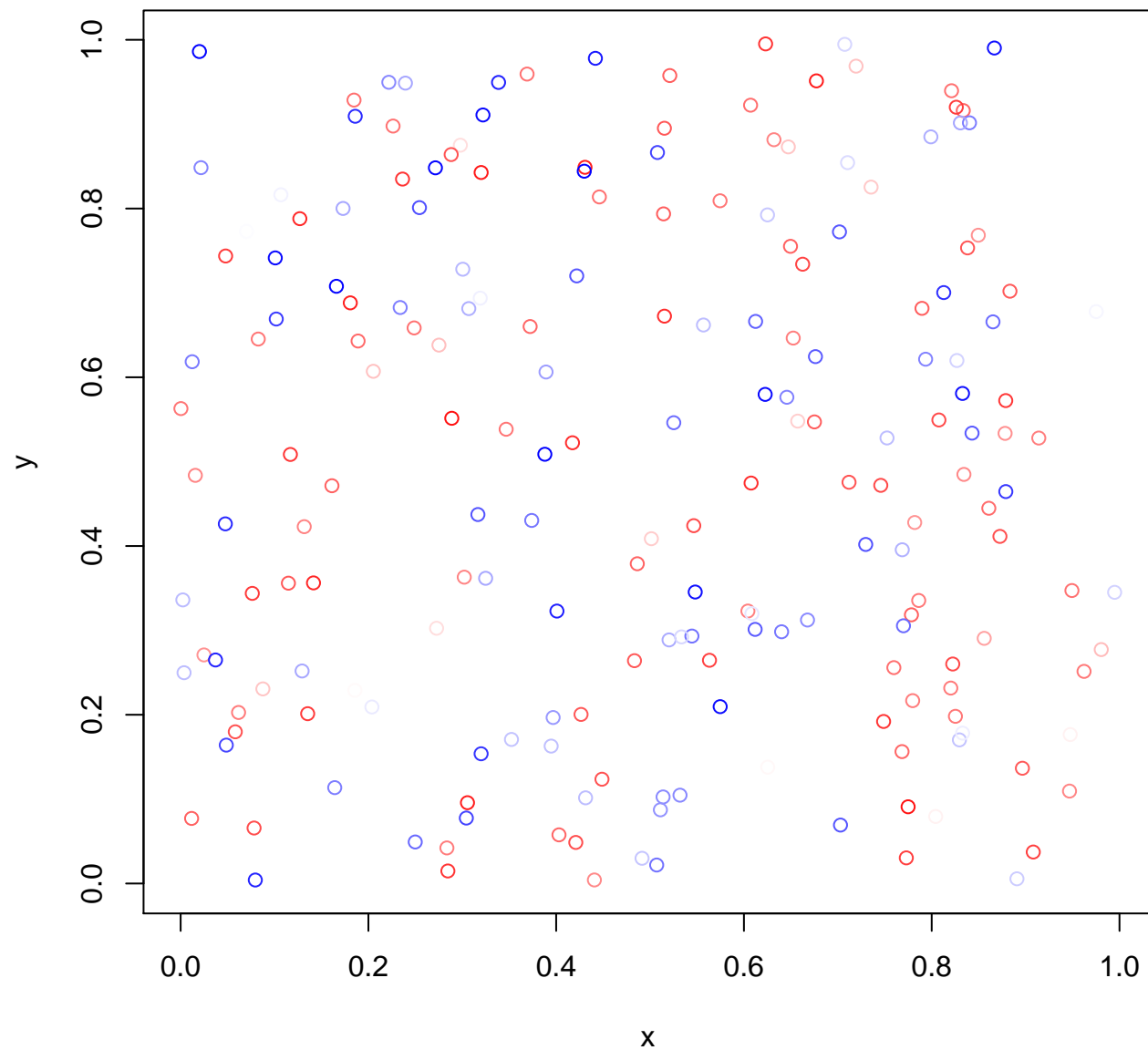


Dispersion test significant

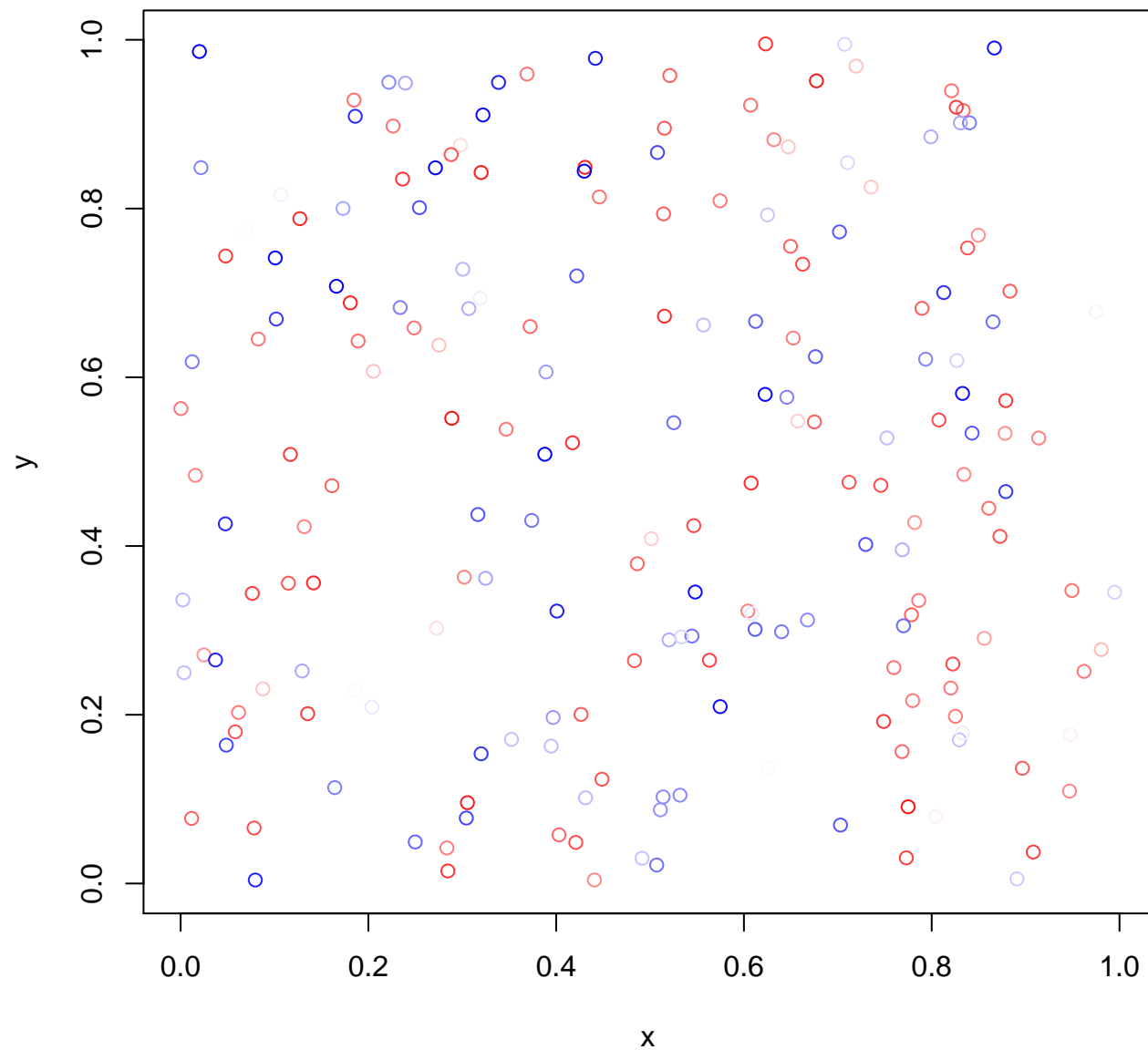


Simulated values, red line = fitted model. p-value (two.sided) = 0

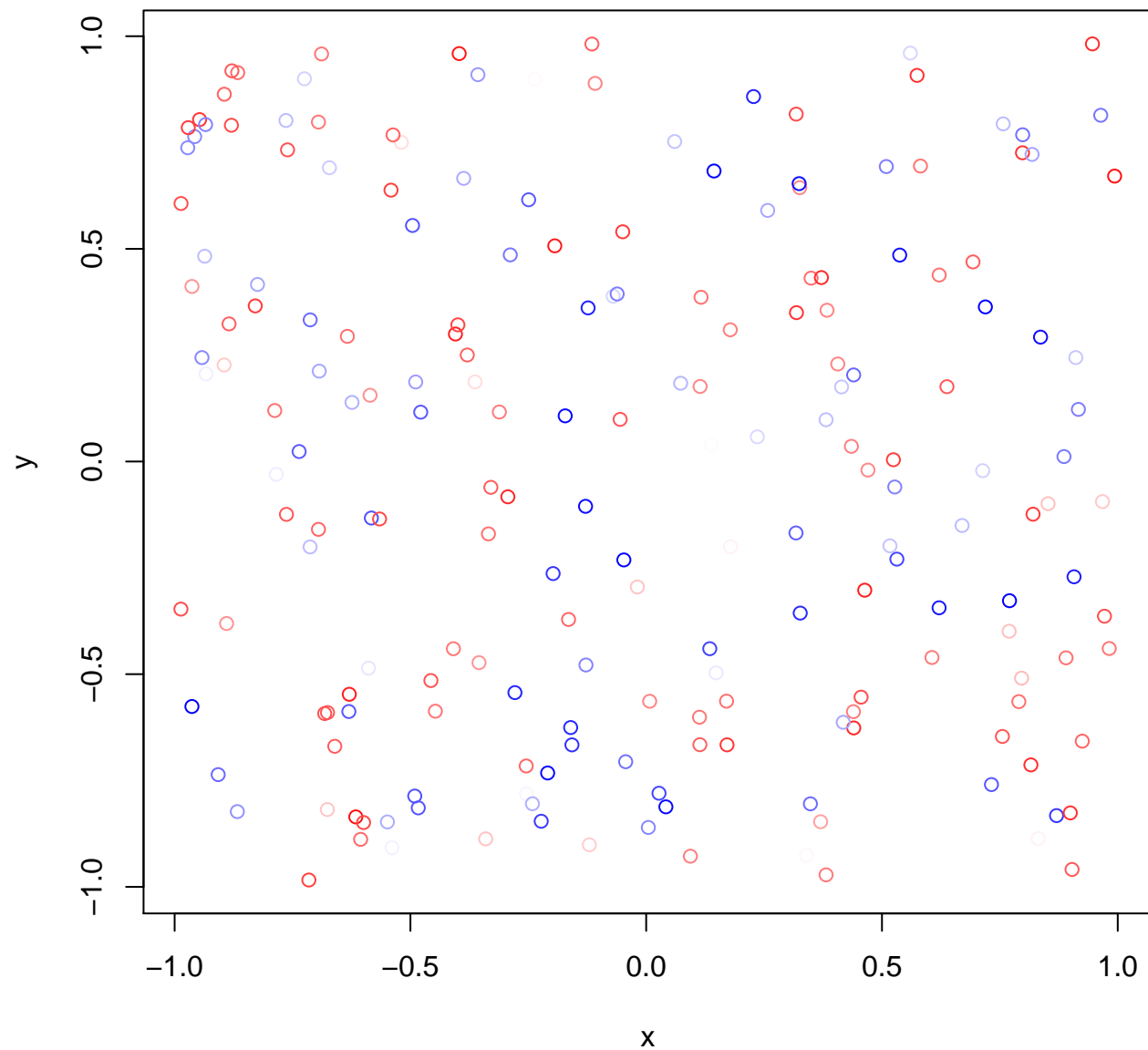
DHARMA Moran's I test for spatial autocorrelation



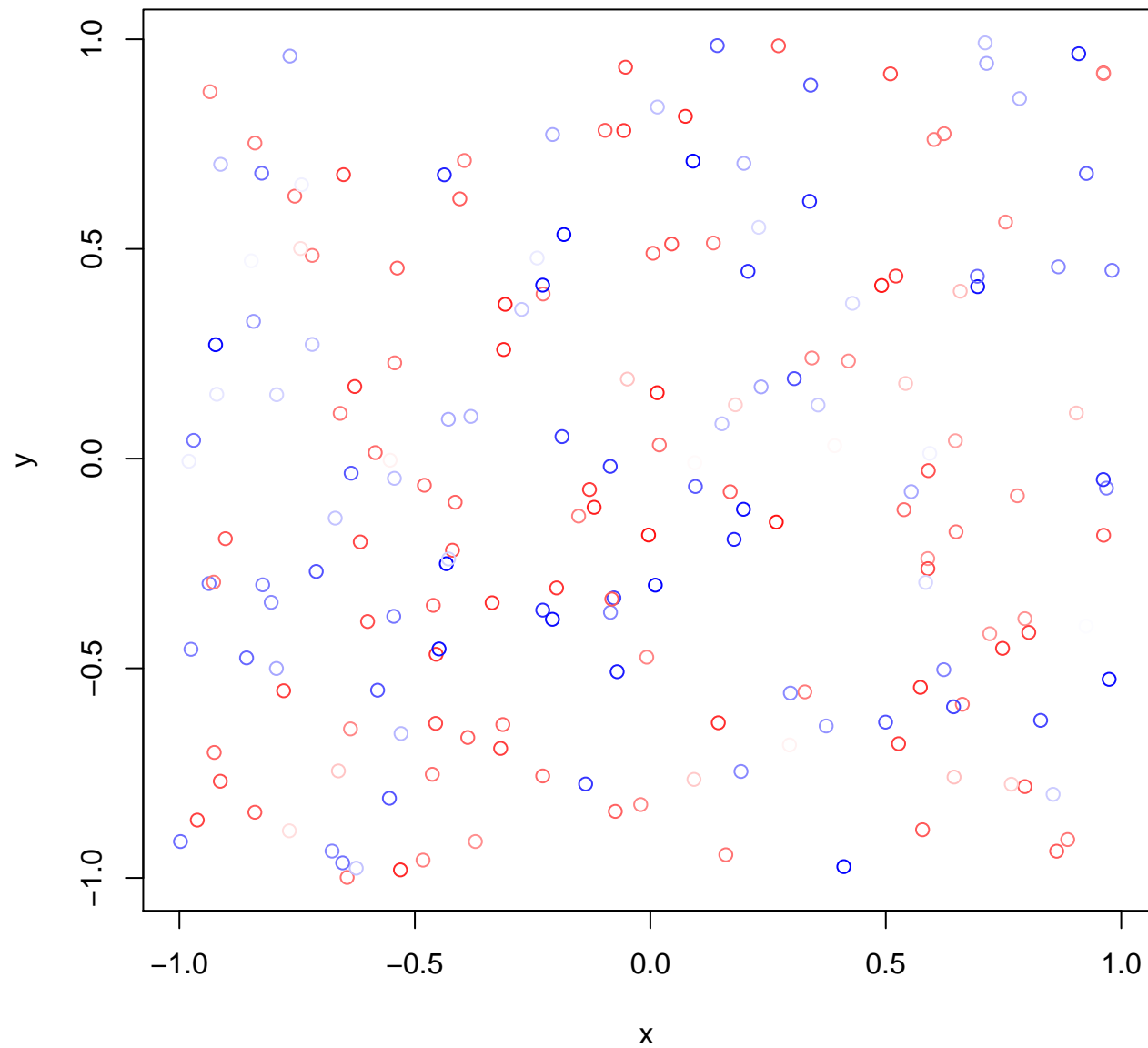
DHARMA Moran's I test for spatial autocorrelation



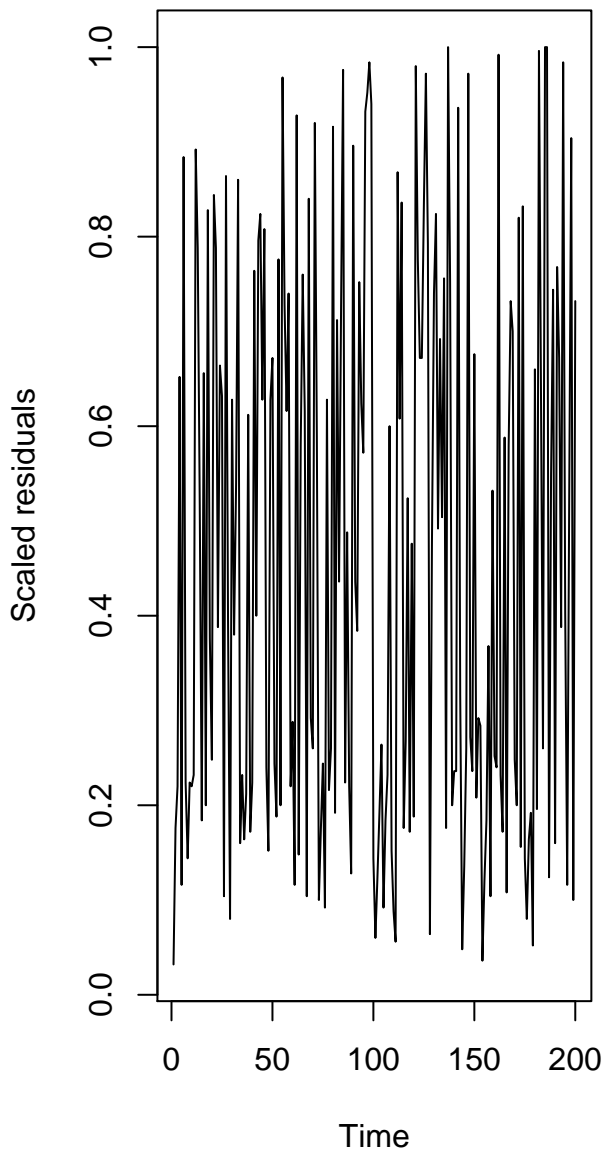
DHARMA Moran's I test for spatial autocorrelation



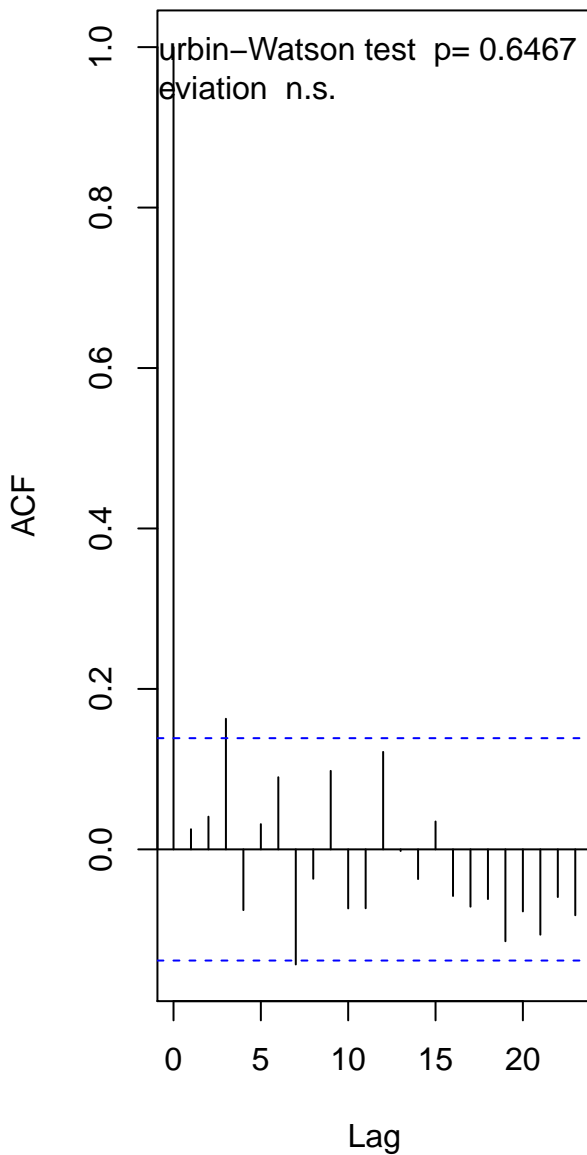
DHARMA Moran's I test for spatial autocorrelation



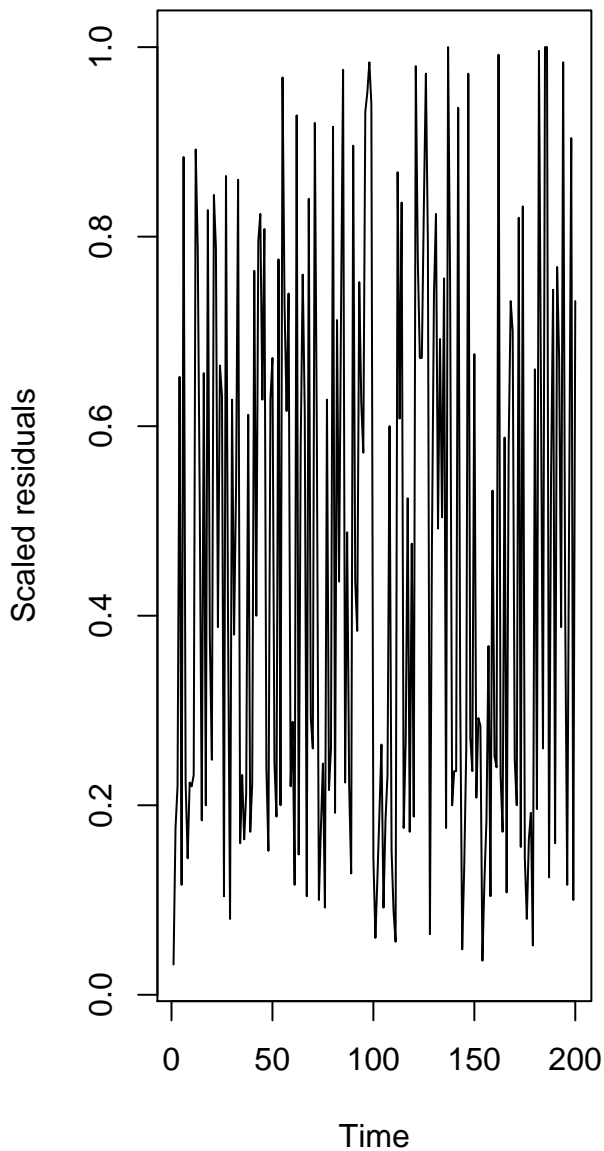
Residuals vs. time



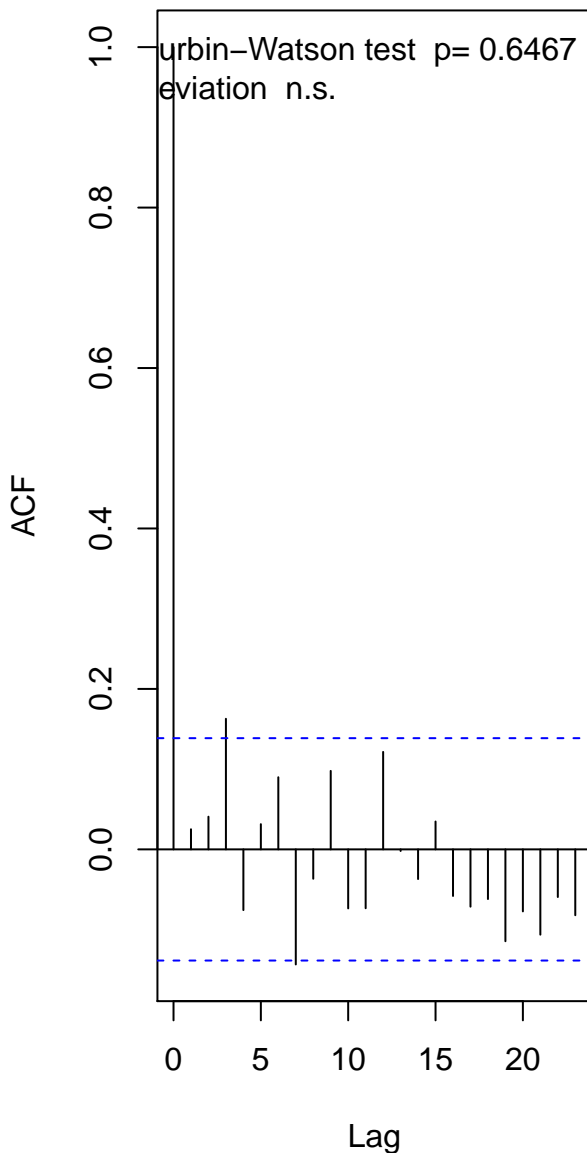
Autocorrelation



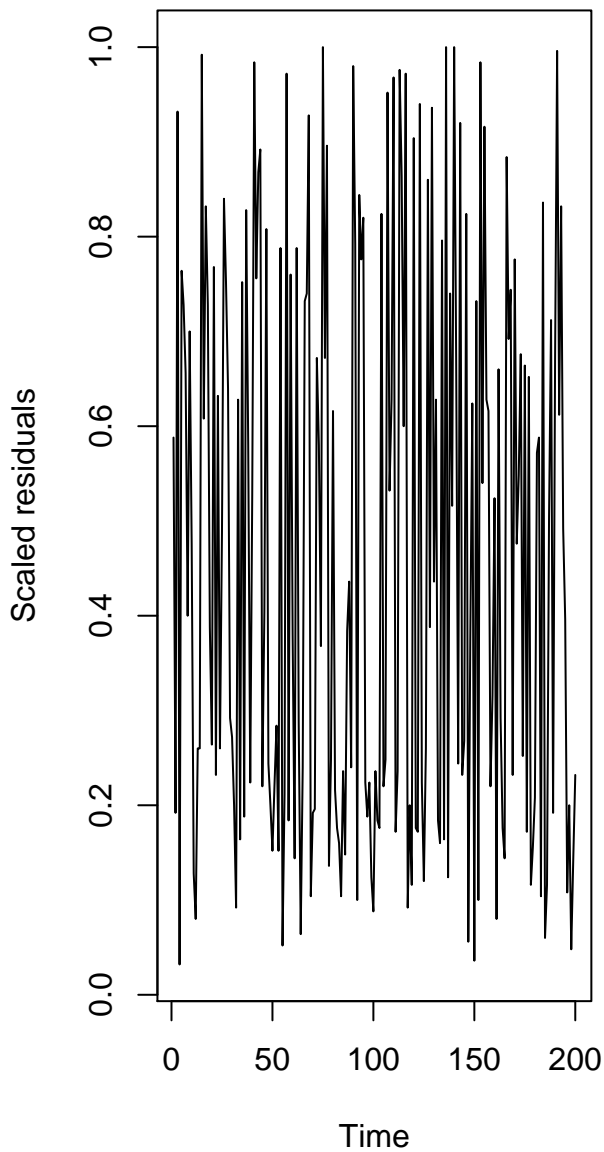
Residuals vs. time



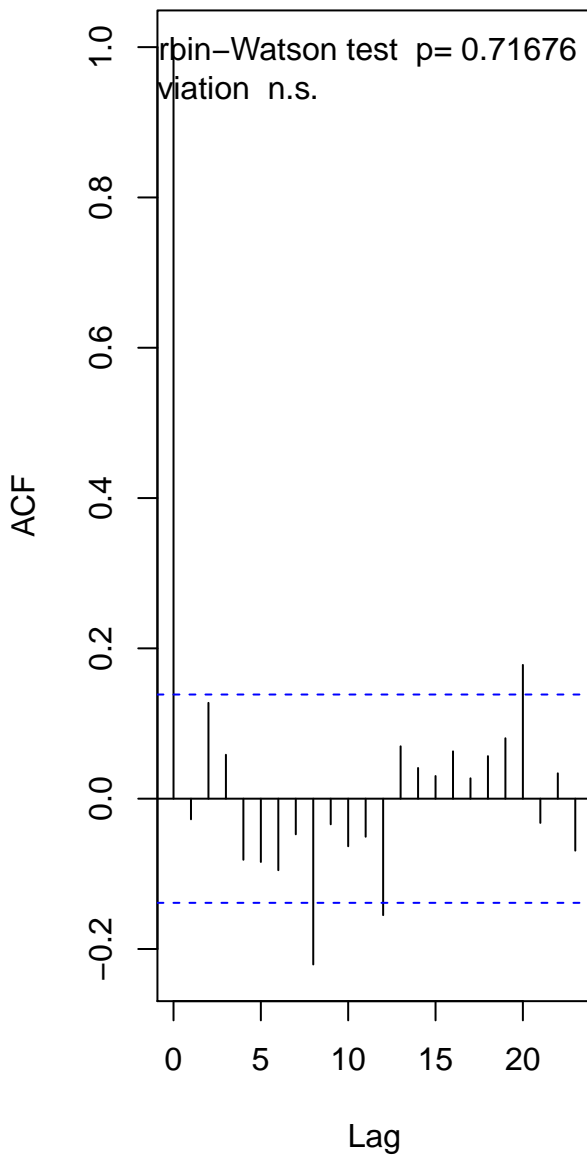
Autocorrelation



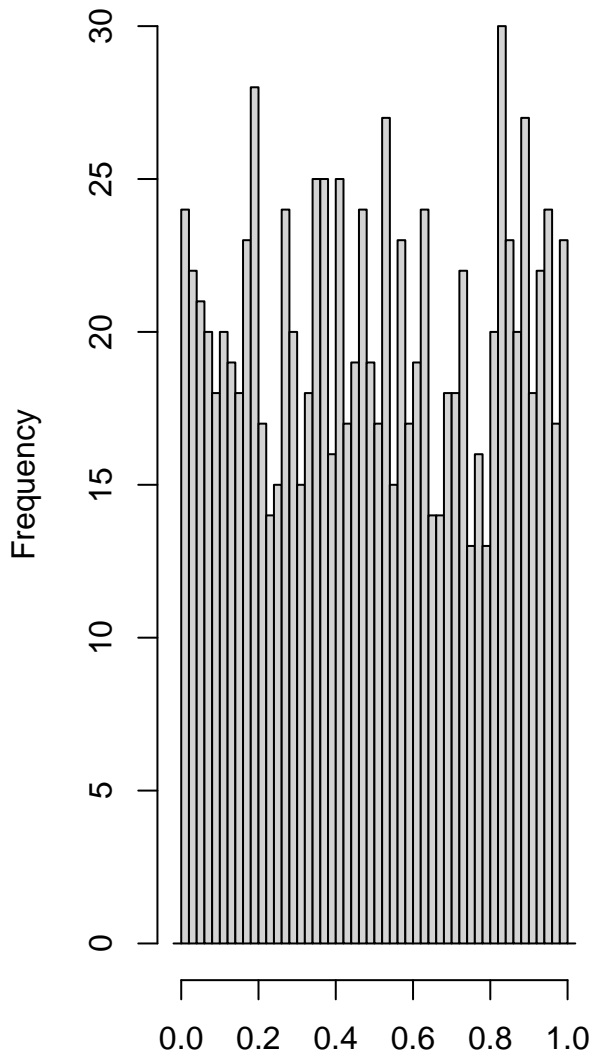
Residuals vs. time



Autocorrelation

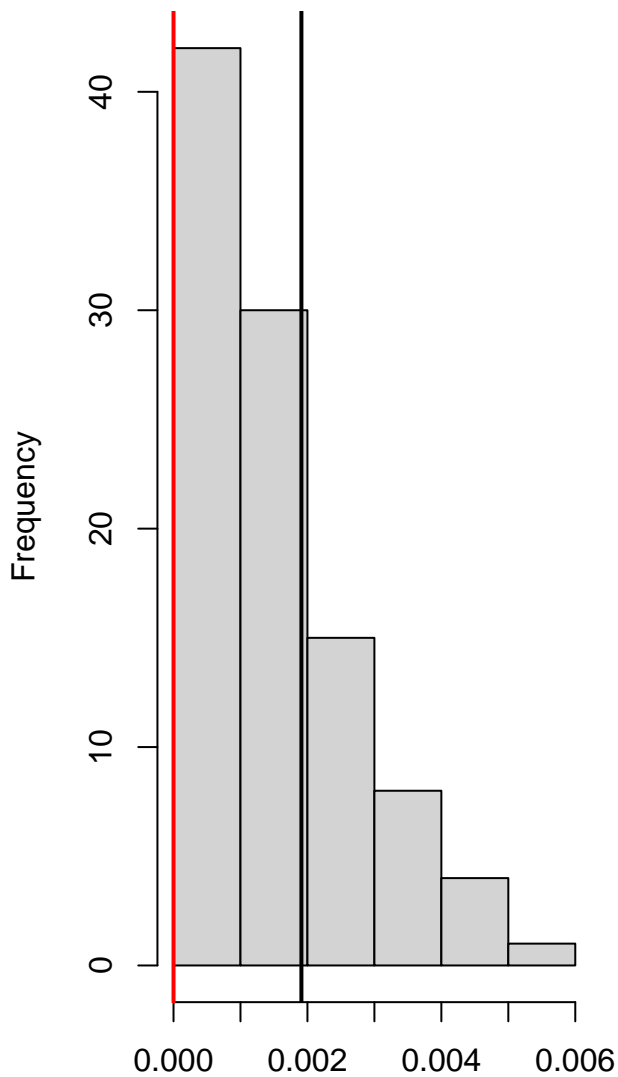


Outlier test n.s.



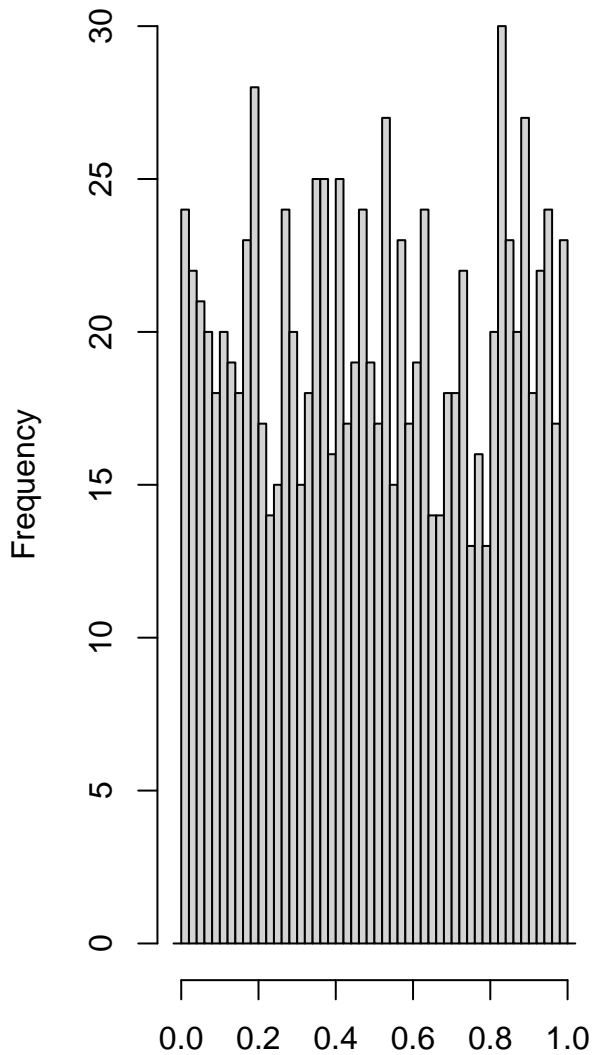
Residuals (outliers are marked red)

Histogram of frequBoot



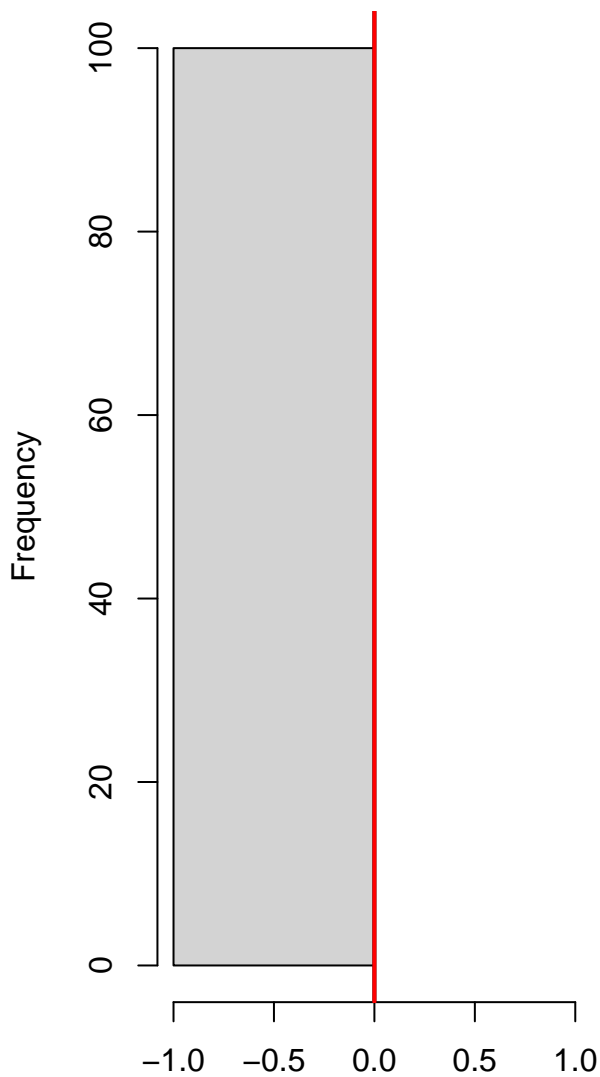
frequBoot

Outlier test n.s.



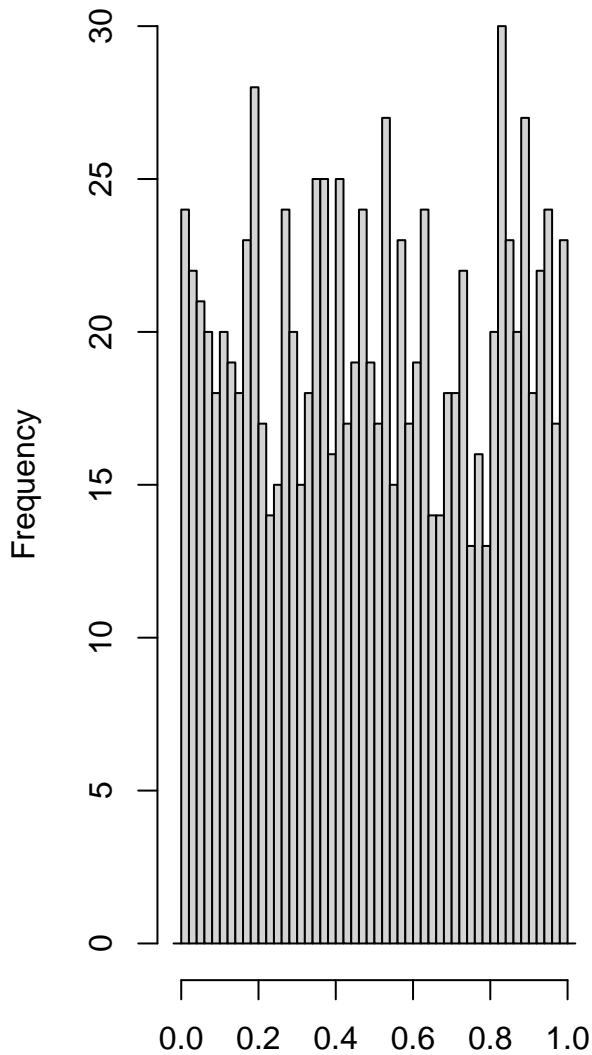
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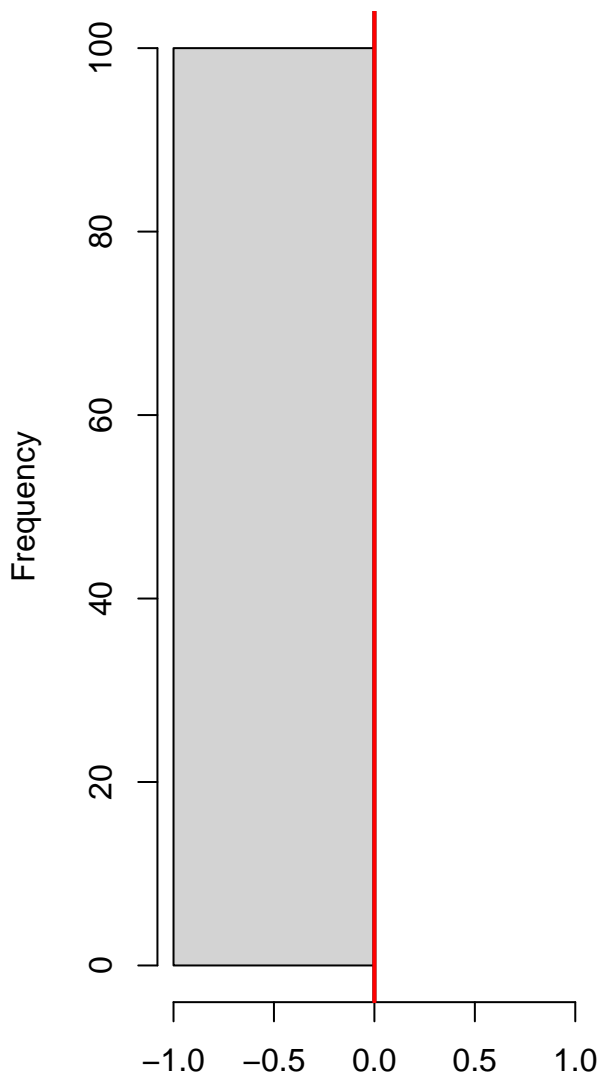
frequBoot

Outlier test n.s.



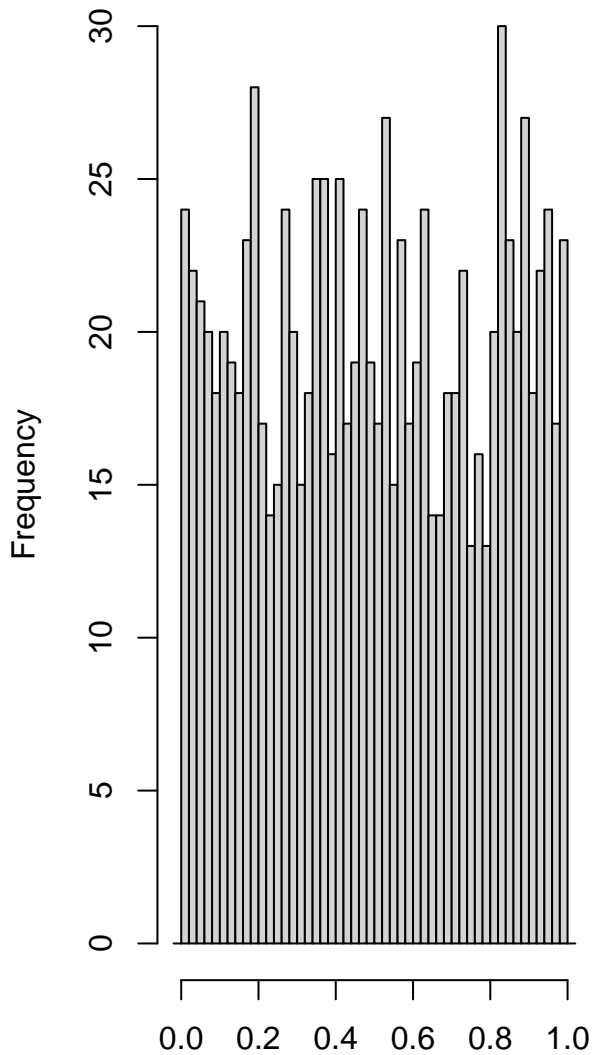
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Histogram of frequBoot



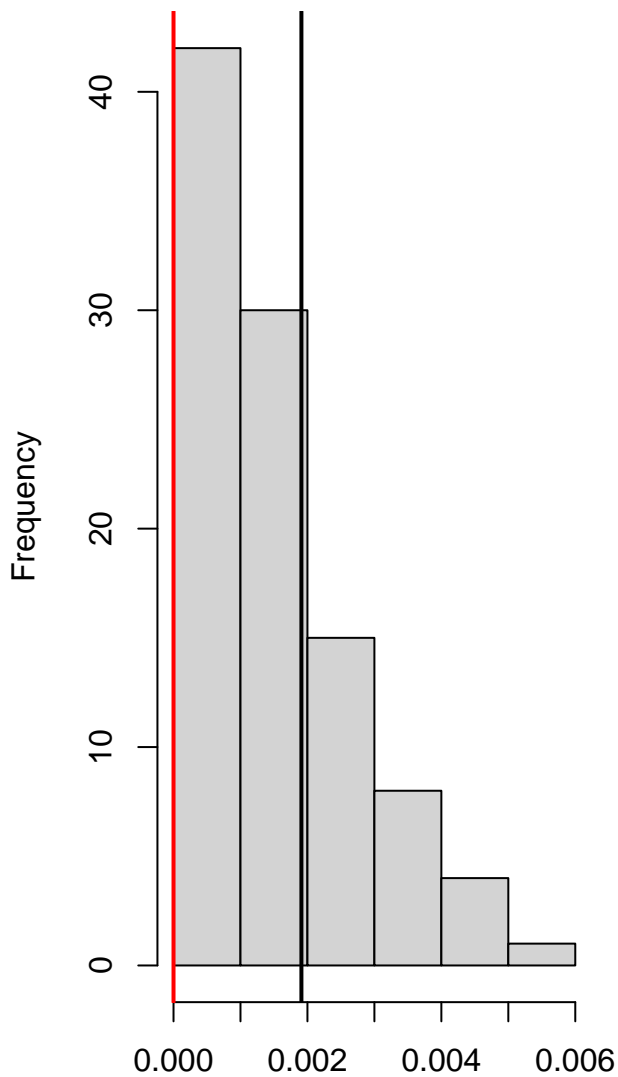
frequBoot

Outlier test n.s.



Residuals (outliers are marked red)

Histogram of frequBoot



frequBoot