

STAT 485/685 Lecture 22 Fall 2017
30 November 2017

- I discussed diagnostics.
- I talked about how to compute *fitted residuals*.
- I suggested looking at a plot of fitted residuals to check for stationarity.
- Then I suggested plotting the acf of the fitted residuals to see if that looked like the acf of white noise as it should if you have a good $\text{ARIMA}(p, d, q)$ model.
- I suggested looking at the Q-Q plot for the fitted residuals to judge whether or not the forecast intervals were likely have the desired coverage. I warned that heavy tails would increase the error rate for those intervals.
- Then I ran R code to do more model identification, fitting, forecasting and diagnosis.
- I showed that it is not uncommon for there to be several reasonable models which produce very similar forecasts over the short term at least.
- I showed the forecast intervals sometimes seem very wide.
- I showed some of the diagnostics I mentioned above; more than one fit had acceptable diagnostics.
- We have finished Chapters 1 through 9.
- Monday 4 Dec is review.
- The last assignment has been posted; it is due 4 December by 3 PM.
- Handwritten slides.
- R code.