

Documenation Week 6

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1 Time series

First I read the data and removed the last year, because it wasn't full. After that I cut the data after a drop where we could see clear seasonality and trend. Then I calculated the trendline and detrended the data. I got a seasonal index which a repeated for 11 years which was the selected time series. After that I calculated the irregular part and it didn't get trough the test so I differenced it ones and it worked. Then I printed the ACF and PACF and forecasted the trendline. I did the ARMA with for-loops from 7 to 11 and fitted the model to forecast the irregular data and the whole data.

2 Time series

From the second data I removed the year 1959 (matlab did it automatically because it was all NaN) and the latest year, because it wasn't full. After that I cut the data after a drop where we could see clear seasonality and trend. Then I calculated the trendline and detrended the data. I got a seasonal index which a repeated for 13 years which was the selected time series. After that I calculated the irregular part and it didn't get trough the test so I differenced it ones and it worked. Then I printed the ACF and PACF and forecasted the trendline. I did the ARMA with for-loops from 0 to 4 and fitted the model to forecast the irregular data and the whole data.