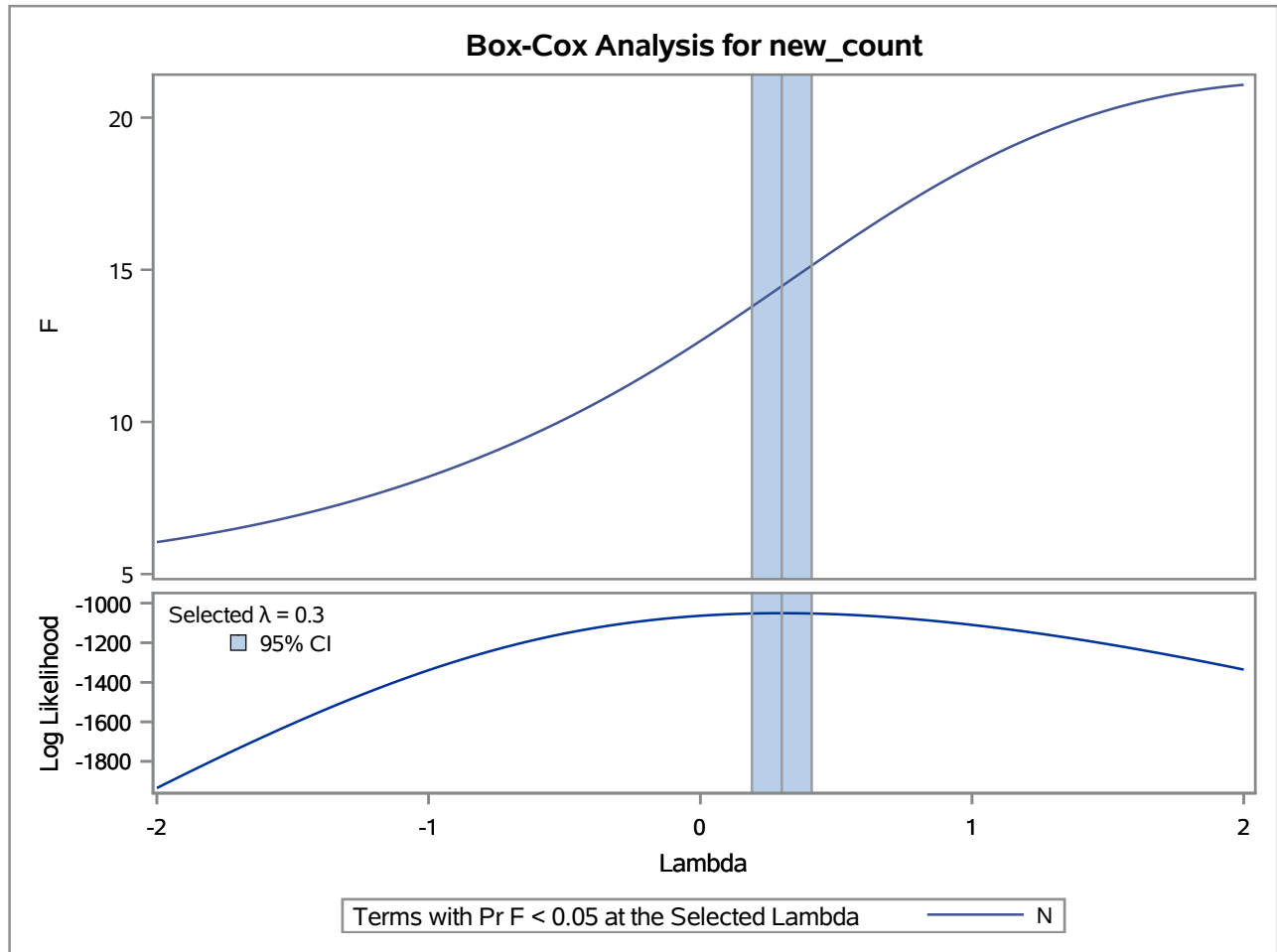


The TRANSREG Procedure



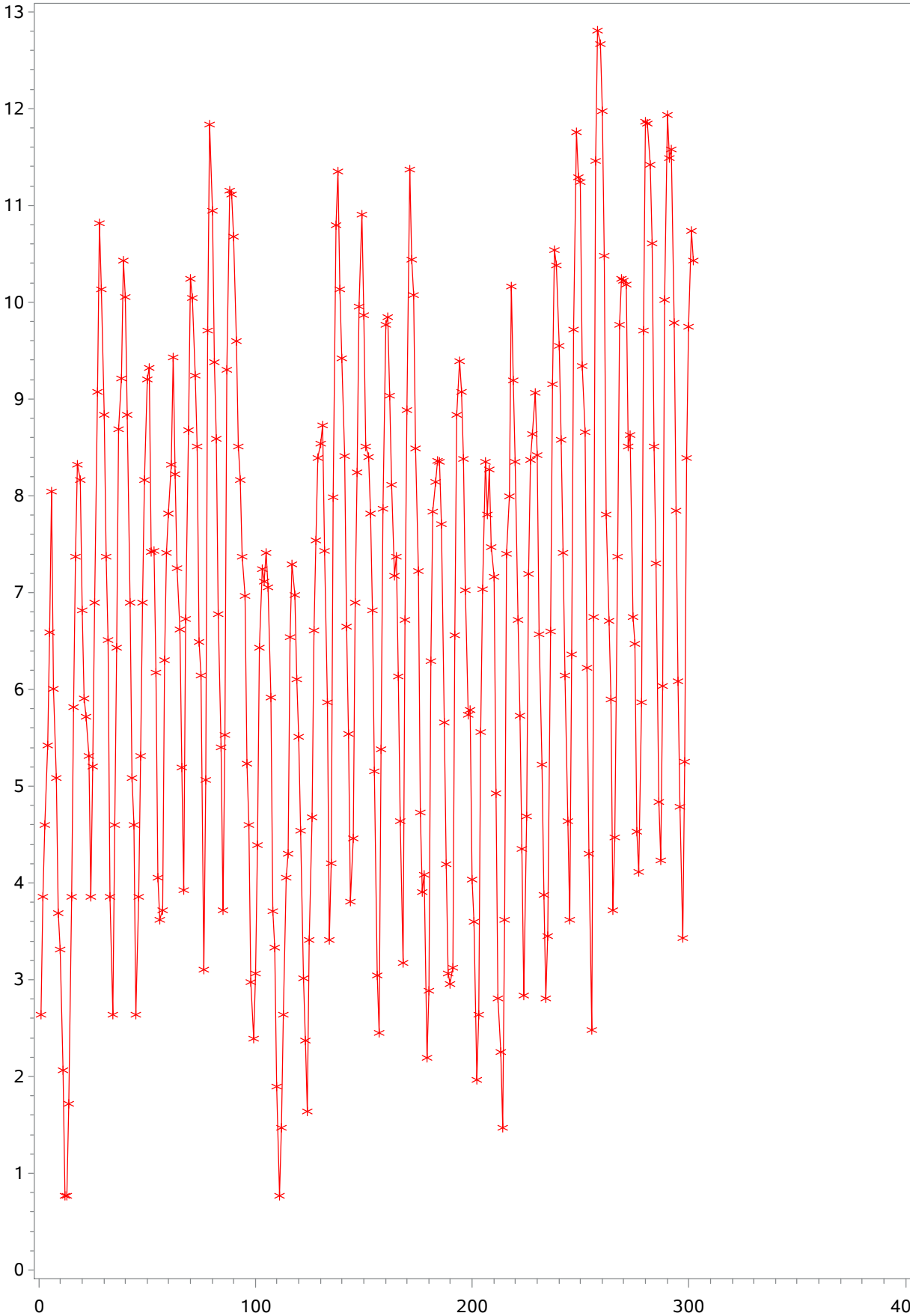
The TRANSREG Procedure

Model Statement Specification Details				
Type	DF	Variable	Description	Value
Dep	1	BoxCox(new_count)	Lambda Used	0.3
			Lambda	0.3
			Log Likelihood	-1050.5
			Conv. Lambda	
			Conv. Lambda LL	
			CI Limit	-1052.4
			Alpha	0.05
Ind	1	Identity(N)	DF	1

# Wei SunSpot Data

## Check Normality

new\_count Transformation



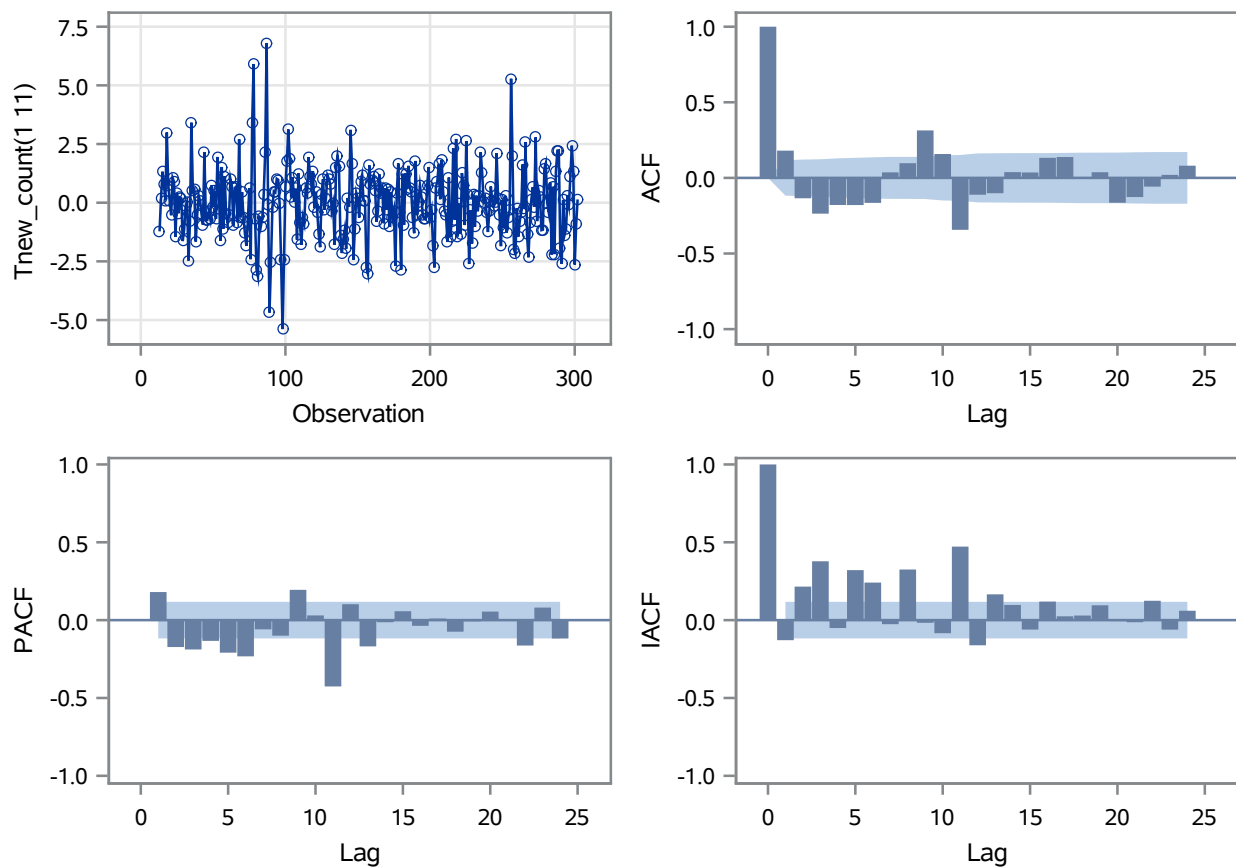
N Transformation

## The ARIMA Procedure

Name of Variable = Tnew_count	
Period(s) of Differencing	1,11
Mean of Working Series	0.002811
Standard Deviation	1.50226
Number of Observations	290
Observation(s) eliminated by differencing	12

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	58.56	6	<.0001	0.180	-0.135	-0.236	-0.179	-0.180	-0.165
12	138.58	12	<.0001	0.037	0.097	0.314	0.158	-0.343	-0.111
18	153.89	18	<.0001	-0.101	0.038	0.036	0.133	0.138	-0.001
24	171.06	24	<.0001	0.037	-0.164	-0.127	-0.058	0.020	0.081

## Trend and Correlation Analysis for Tnew\_count(1 11)



The ARIMA Procedure

Conditional Least Squares Estimation					
Parameter	Estimate	Standard Error	t Value	Approx Pr >  t	Lag
MA1,1	0.26249	0.05181	5.07	<.0001	2
MA1,2	0.32832	0.05522	5.95	<.0001	3
MA1,3	0.18847	0.06102	3.09	0.0022	5
MA1,4	0.18034	0.05768	3.13	0.0020	6
MA1,5	-0.20712	0.05331	-3.89	0.0001	9
MA1,6	-0.19076	0.05152	-3.70	0.0003	10
MA1,7	0.31634	0.06100	5.19	<.0001	11
AR1,1	-0.18522	0.07357	-2.52	0.0124	11

Variance Estimate	1.365048
Std Error Estimate	1.168353
AIC	921.1168
SBC	950.4759
Number of Residuals	290

\* AIC and SBC do not include log determinant.

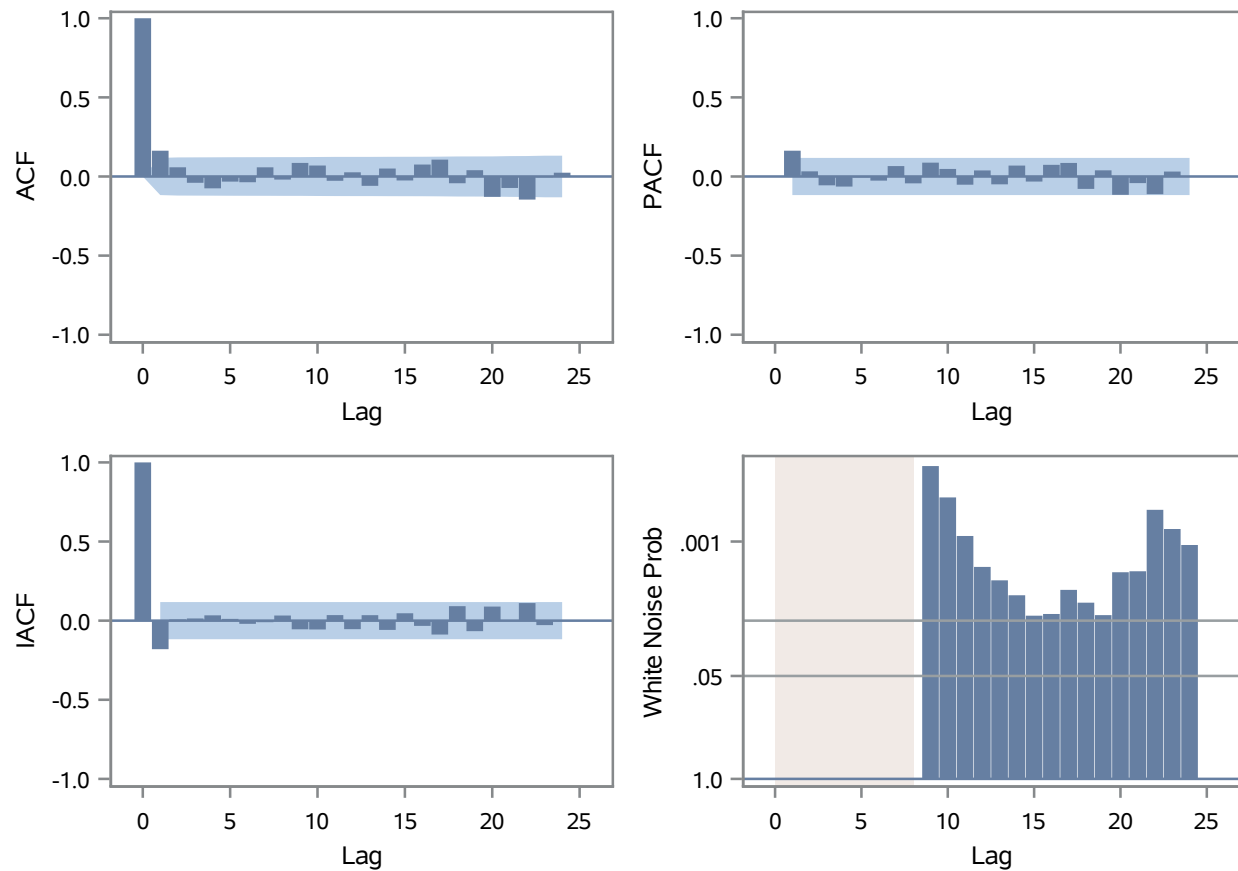
Correlations of Parameter Estimates								
Parameter	MA1,1	MA1,2	MA1,3	MA1,4	MA1,5	MA1,6	MA1,7	AR1,1
MA1,1	1.000	-0.135	-0.453	0.068	-0.044	-0.325	0.206	0.084
MA1,2	-0.135	1.000	-0.216	-0.303	-0.210	0.276	-0.313	-0.216
MA1,3	-0.453	-0.216	1.000	-0.081	0.359	-0.377	-0.337	-0.076
MA1,4	0.068	-0.303	-0.081	1.000	-0.497	0.139	-0.213	-0.050
MA1,5	-0.044	-0.210	0.359	-0.497	1.000	-0.381	-0.047	0.054
MA1,6	-0.325	0.276	-0.377	0.139	-0.381	1.000	-0.068	-0.063
MA1,7	0.206	-0.313	-0.337	-0.213	-0.047	-0.068	1.000	0.550
AR1,1	0.084	-0.216	-0.076	-0.050	0.054	-0.063	0.550	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	.	0	.	0.166	0.061	-0.036	-0.072	-0.030	-0.034
12	17.10	4	0.0019	0.060	-0.017	0.088	0.071	-0.026	0.028
18	24.97	10	0.0054	-0.057	0.051	-0.024	0.076	0.107	-0.042
24	38.93	16	0.0011	0.041	-0.127	-0.071	-0.144	-0.005	0.024
30	40.20	22	0.0102	-0.002	-0.033	-0.036	0.028	-0.028	-0.010

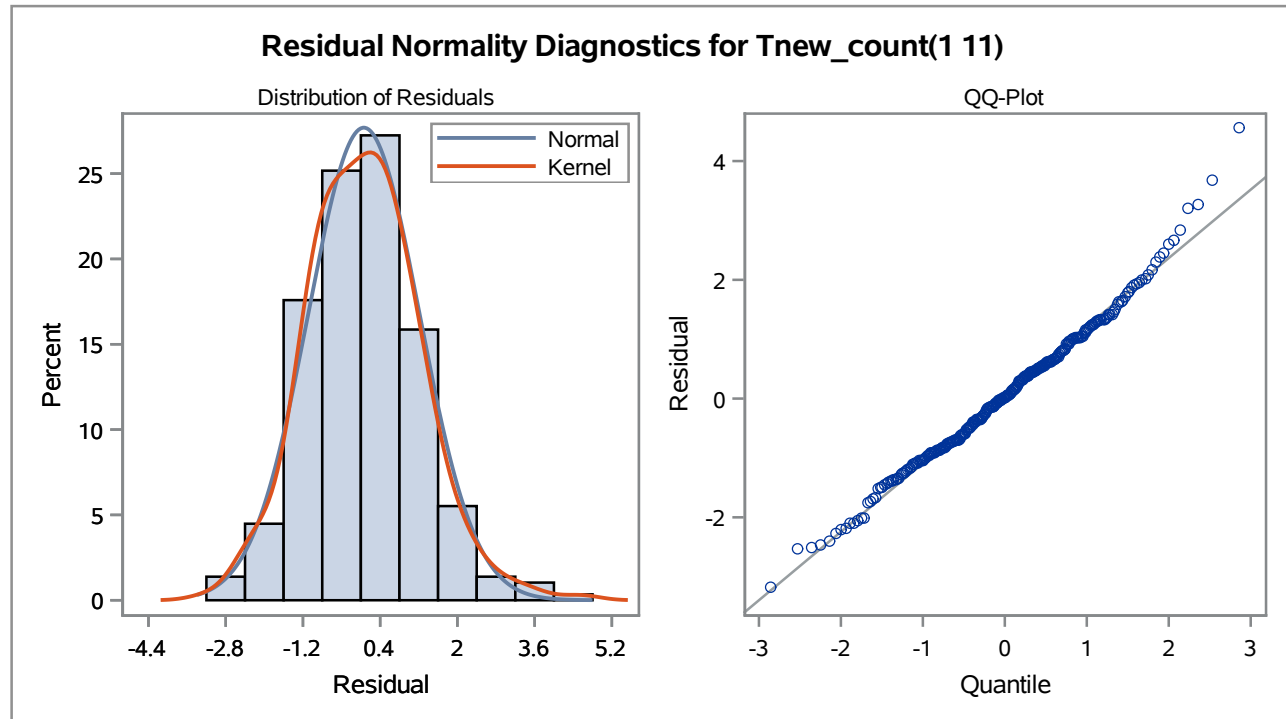
The ARIMA Procedure

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
36	43.84	28	0.0288	-0.010	0.013	-0.043	-0.023	0.011	-0.091
42	51.83	34	0.0257	-0.115	0.002	-0.033	0.020	0.091	0.025
48	55.47	40	0.0527	0.004	-0.033	-0.097	0.008	0.005	0.005

Residual Correlation Diagnostics for Tnew\_count(1 11)



## The ARIMA Procedure



Model for variable Tnew_count	
Period(s) of Differencing	1,11

No mean term in this model.

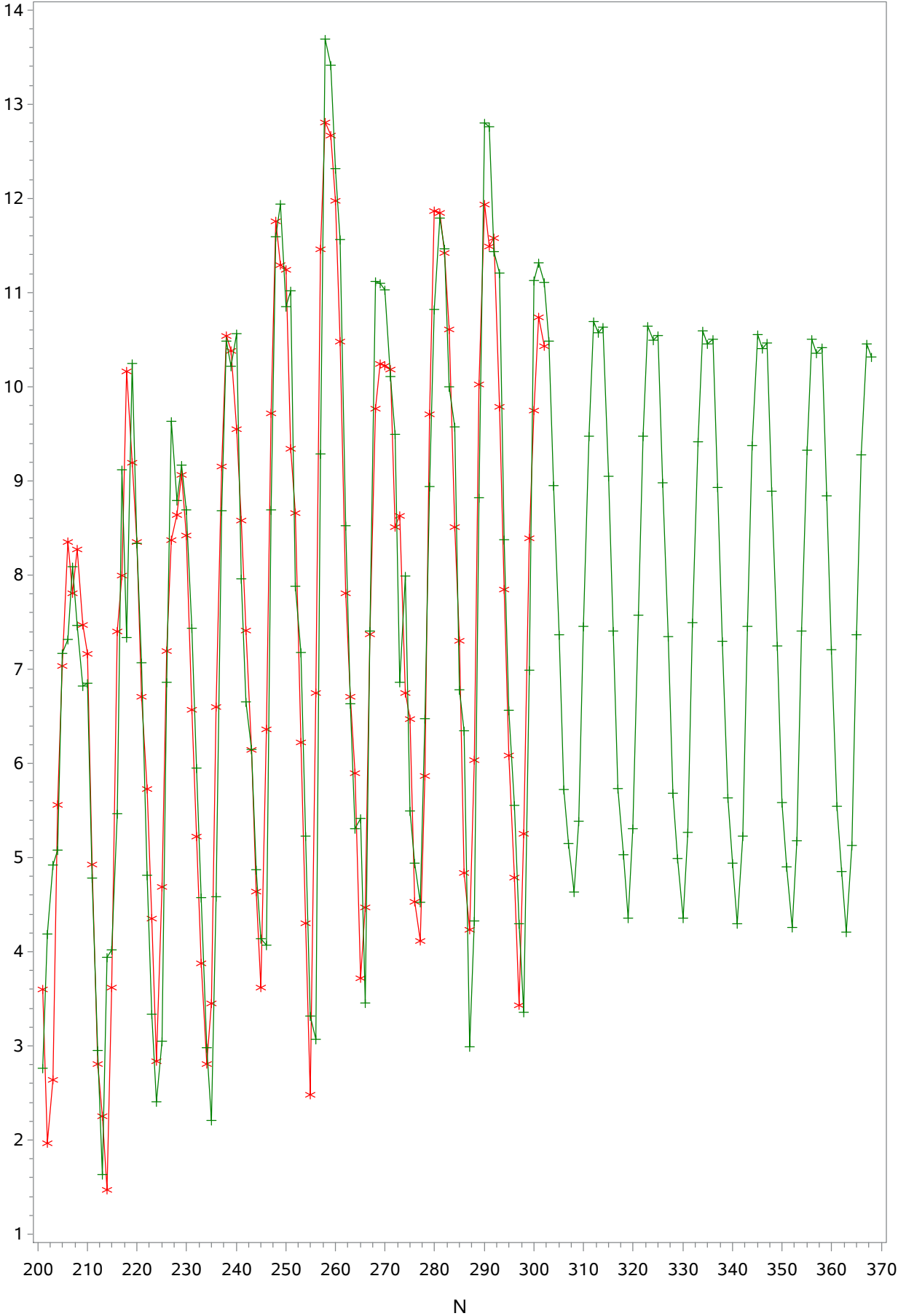
Autoregressive Factors	
Factor 1:	1 + 0.18522 B**(11)

Moving Average Factors	
Factor 1:	1 - 0.26249 B**(2) - 0.32832 B**(3) - 0.18847 B**(5) - 0.18034 B**(6) + 0.20712 B**(9) + 0.19076 B**(10) - 0.31634 B**(11)

# Wei SunSpot Data

Check Normality

new\_count Transformation





# Wei SunSpot Data

## Check Normality

new\_count Transformation

