

Emilia Romagna Grand Prix, 2021

Forecasting Fernando Alonso's Next 5 Lap Times

Nathan Jones 2022

Name of Variable = time	
Period(s) of Differencing	1,1
Mean of Working Series	-0.21123
Standard Deviation	17.94698
Number of Observations	61
Observation(s) eliminated by differencing	2

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	29.99	6	<.0001	-0.477	-0.013	0.037	-0.226	0.359	-0.209
12	30.12	12	0.0027	0.017	0.013	0.006	-0.009	0.023	-0.025

Variance Estimate	322.1388
Std Error Estimate	17.94823
AIC	525.3844
SBC	525.3844
Number of Residuals	61

* AIC and SBC do not include log determinant.

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	29.98	6	<.0001	-0.477	-0.013	0.037	-0.226	0.358	-0.209
12	30.11	12	0.0027	0.017	0.013	0.006	-0.009	0.023	-0.025
18	30.59	18	0.0321	0.031	-0.031	-0.008	0.046	-0.038	-0.013
24	31.88	24	0.1300	0.030	-0.012	0.048	-0.080	0.024	0.052

Model for variable time	
Period(s) of Differencing	1,1

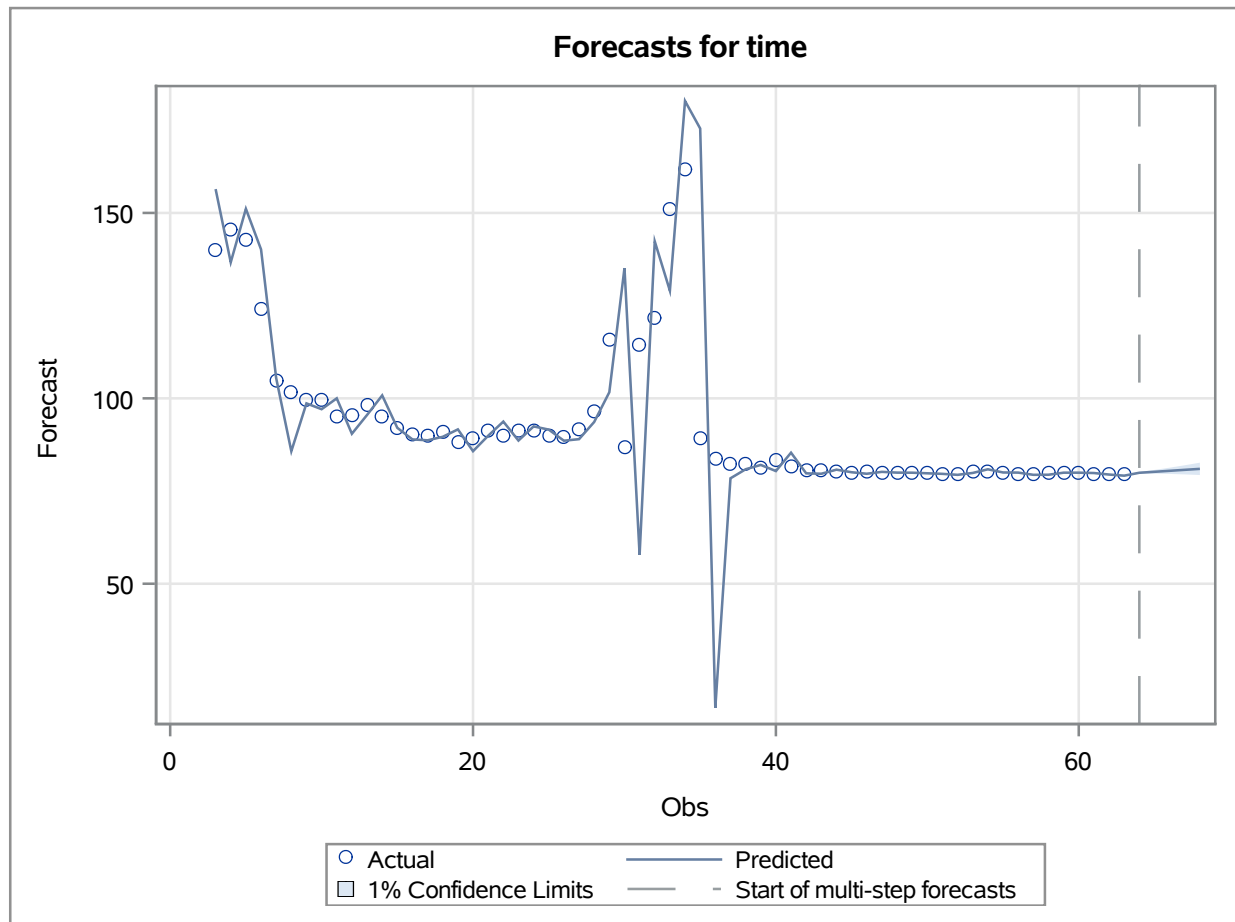
No mean term in this model.

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Forecasts for variable time				
Obs	Forecast	Std Error	1% Confidence Limits	
64	79.9240	17.9482	79.6990	80.1490
65	80.1880	40.1335	79.6850	80.6910
66	80.4520	67.1561	79.6103	81.2937
67	80.7160	98.3065	79.4839	81.9481
68	80.9800	133.1076	79.3117	82.6483



Outlier Detection Summary	
Maximum number searched	2
Number found	2
Significance used	0.05

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Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
35	Shift	-75.43000	2941.70	<.0001
30	Additive	-30.39817	1433.26	<.0001