Emilia Romagna Grand Prix, 2021

Forecasting Lewis Hamilton's Next 5 Lap Times
Nathan Jones 2022

Name of Variable = time	
Period(s) of Differencing	1,1
Mean of Working Series	-0.76351
Standard Deviation	29.44907
Number of Observations	61
Observation(s) eliminated by differencing	2

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	46.54	6	<.0001	-0.620	0.111	0.255	-0.402	0.267	-0.121
12	46.69	12	<.0001	0.035	-0.017	0.019	-0.005	-0.006	0.013

Variance Estimate	867.8304
Std Error Estimate	29.45896
AIC	585.8363
SBC	585.8363
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	46.47	6	<.0001	-0.620	0.111	0.255	-0.401	0.267	-0.121
12	46.62	12	<.0001	0.035	-0.017	0.019	-0.005	-0.006	0.013
18	46.66	18	0.0002	-0.010	-0.003	0.010	-0.012	0.012	-0.007
24	49.44	24	0.0017	-0.004	0.016	0.003	-0.046	0.103	-0.119

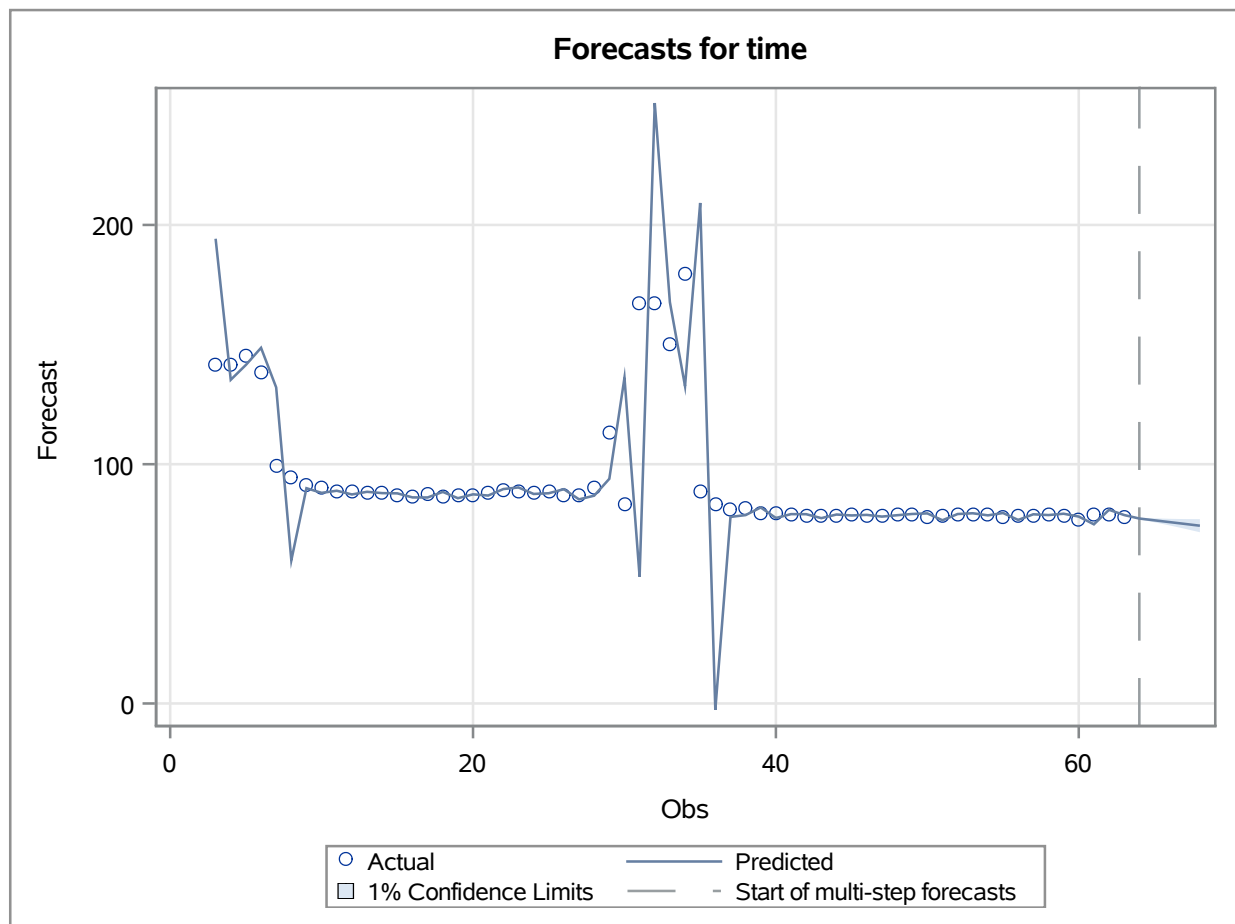| Model for variable time	
Period(s) of Differencing	1,1

No mean term in this model.

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Forecasts for variable time				
Obs	**Forecast**	**Std Error**	**1% Confidence Limits**	
64	77.2890	29.4590	76.9198	77.6582
65	76.5400	65.8722	75.7144	77.3656
66	75.7910	110.2253	74.4095	77.1725
67	75.0420	161.3534	73.0197	77.0643
68	74.2930	218.4735	71.5548	77.0312

Forecasts for time

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
34	Additive	62.37800	5237.23	<.0001
30	Additive	-60.77683	4971.82	<.0001