

Emilia Romagna Grand Prix, 2021

Forecasting Carlos Sainz's Next 5 Lap Times

Nathan Jones 2022

Name of Variable = time	
Period(s) of Differencing	1,1
Mean of Working Series	-0.41893
Standard Deviation	20.28178
Number of Observations	60
Observation(s) eliminated by differencing	2

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	50.08	6	<.0001	-0.645	0.324	-0.283	0.208	-0.228	0.283
12	52.17	12	<.0001	-0.166	0.003	0.033	-0.025	0.009	0.014

Variance Estimate	411.5261
Std Error Estimate	20.28611
AIC	531.465
SBC	531.465
Number of Residuals	60

* AIC and SBC do not include log determinant.

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	50.06	6	<.0001	-0.645	0.323	-0.283	0.207	-0.228	0.283
12	52.14	12	<.0001	-0.166	0.003	0.033	-0.025	0.009	0.014
18	52.35	18	<.0001	-0.012	-0.020	0.039	-0.016	-0.013	-0.006
24	53.38	24	0.0005	0.049	-0.062	0.032	-0.002	-0.008	0.059

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

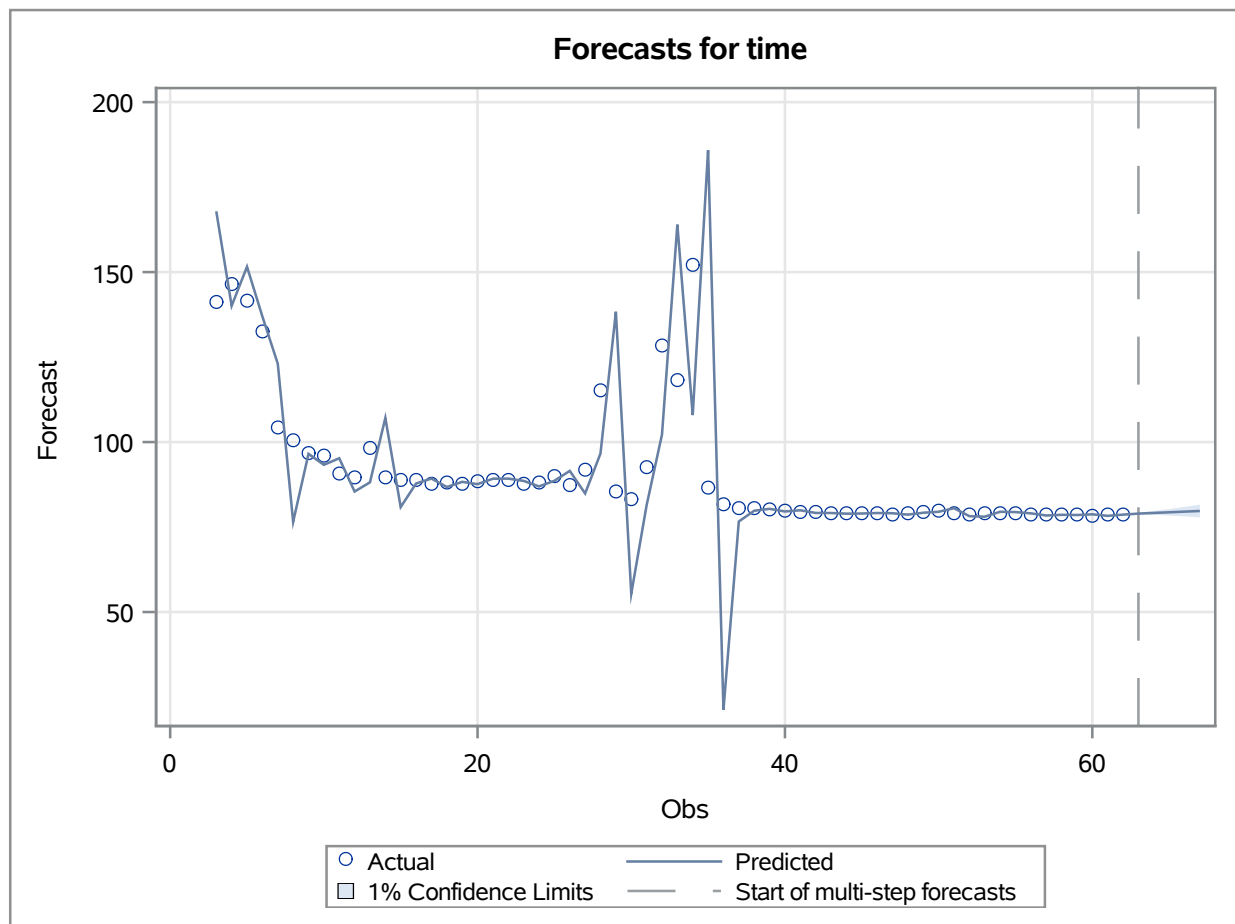
No mean term in this model.

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Forecasts for variable time				
Obs	Forecast	Std Error	1% Confidence Limits	
63	78.9570	20.2861	78.7027	79.2113
64	79.1500	45.3611	78.5815	79.7185
65	79.3430	75.9037	78.3917	80.2943
66	79.5360	111.1116	78.1434	80.9286
67	79.7290	150.4458	77.8434	81.6146



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	50.49083	5033.06	<.0001
28	Additive	25.43817	1277.55	<.0001