

# Emilia Romagna Grand Prix, 2021

## Forecasting Valtteri Bottas's Next 5 Lap Times

Nathan Jones 2022

Name of Variable = time	
Period(s) of Differencing	1,1
Mean of Working Series	-1.74389
Standard Deviation	11.93925
Number of Observations	28
Observation(s) eliminated by differencing	2

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	2.29	6	0.8911	-0.229	-0.088	0.028	0.052	-0.087	0.011

Variance Estimate	145.5869
Std Error Estimate	12.06594
AIC	218.9222
SBC	218.9222
Number of Residuals	28

\* AIC and SBC do not include log determinant.

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	2.35	6	0.8844	-0.234	-0.085	0.029	0.048	-0.091	0.013
12	2.54	12	0.9980	-0.008	-0.030	0.039	-0.039	0.010	0.002
18	3.34	18	0.9999	-0.010	0.011	-0.011	0.017	-0.077	0.061
24	19.92	24	0.7014	0.019	-0.023	0.083	-0.282	0.020	0.146

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

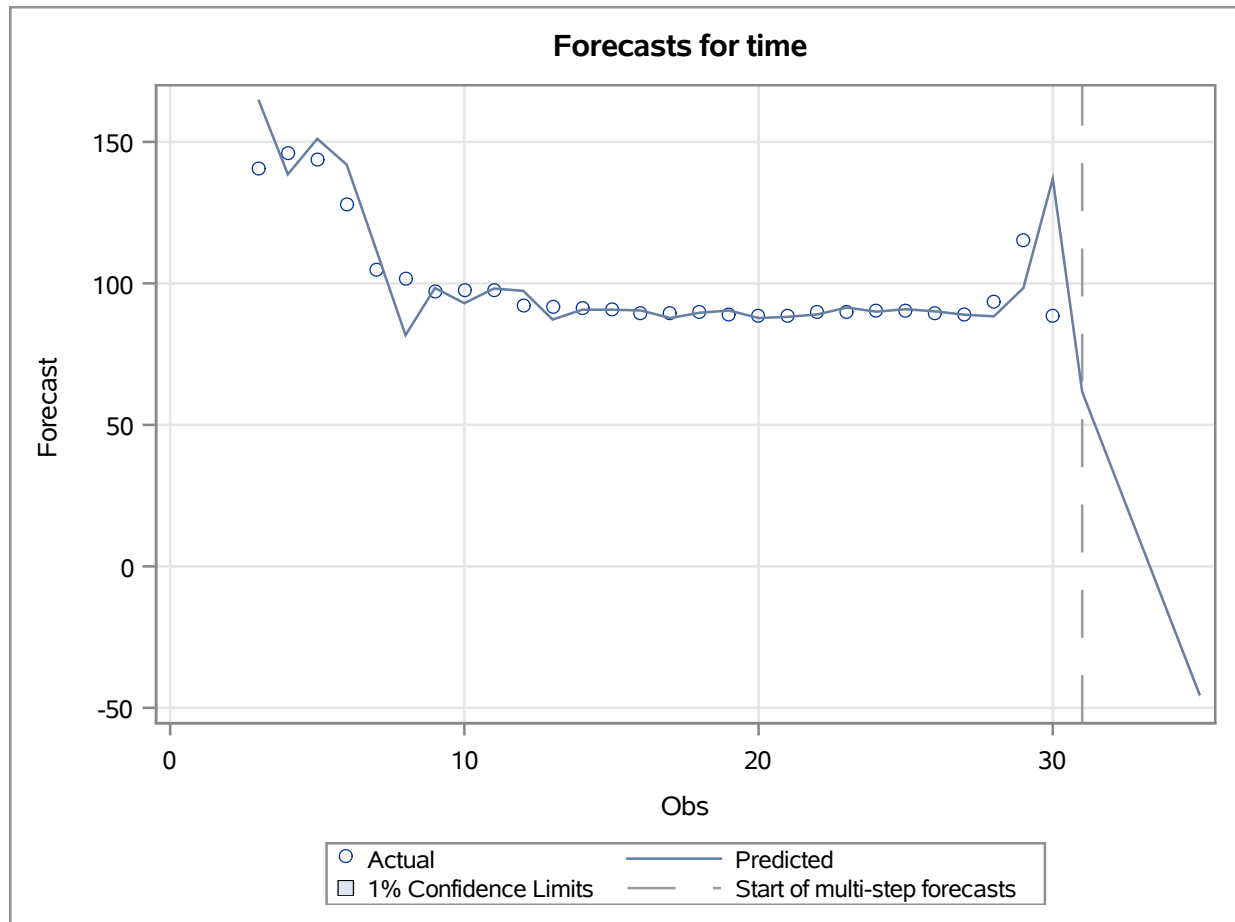
No mean term in this model.

Forecasts for variable time				
Obs	Forecast	Std Error	1% Confidence Limits	
31	61.6640	12.0659	61.5128	61.8152
32	34.8430	26.9803	34.5048	35.1812
33	8.0220	45.1466	7.4562	8.5878
34	-18.7990	66.0879	-19.6273	-17.9707
35	-45.6200	89.4834	-46.7415	-44.4985

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Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
29	Additive	22.77520	472.73	<.0001