

# Emilia Romagna Grand Prix, 2021

## Forecasting George Russell's Next 5 Lap Times Nathan Jones 2022

| Name of Variable = time                   |          |
|---|----------|
| Period(s) of Differencing                 | 1,1      |
| Mean of Working Series                    | -0.75614 |
| Standard Deviation                        | 12.60449 |
| Number of Observations                    | 28       |
| Observation(s) eliminated by differencing | 2        |

| Autocorrelation Check for White Noise |            |    |            |                  |       |       |       |        |       |
|---------------------------------------|------------|----|------------|------------------|-------|-------|-------|--------|-------|
| To Lag                                | Chi-Square | DF | Pr > ChiSq | Autocorrelations |       |       |       |        |       |
| 6                                     | 7.95       | 6  | 0.2415     | -0.490           | 0.057 | 0.044 | 0.038 | -0.085 | 0.005 |

|                     |          |
|---------------------|----------|
| Variance Estimate   | 159.445  |
| Std Error Estimate  | 12.62715 |
| AIC                 | 221.4681 |
| SBC                 | 221.4681 |
| 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                                  | 7.94       | 6  | 0.2424     | -0.489           | 0.063  | 0.041  | 0.035  | -0.088 | 0.005  |
| 12                                 | 8.17       | 12 | 0.7719     | -0.016           | 0.029  | -0.045 | 0.040  | -0.015 | -0.008 |
| 18                                 | 8.36       | 18 | 0.9727     | 0.007            | -0.036 | 0.042  | -0.001 | -0.002 | -0.003 |
| 24                                 | 23.98      | 24 | 0.4629     | 0.048            | -0.190 | 0.101  | 0.083  | 0.005  | -0.212 |

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

No mean term in this model.

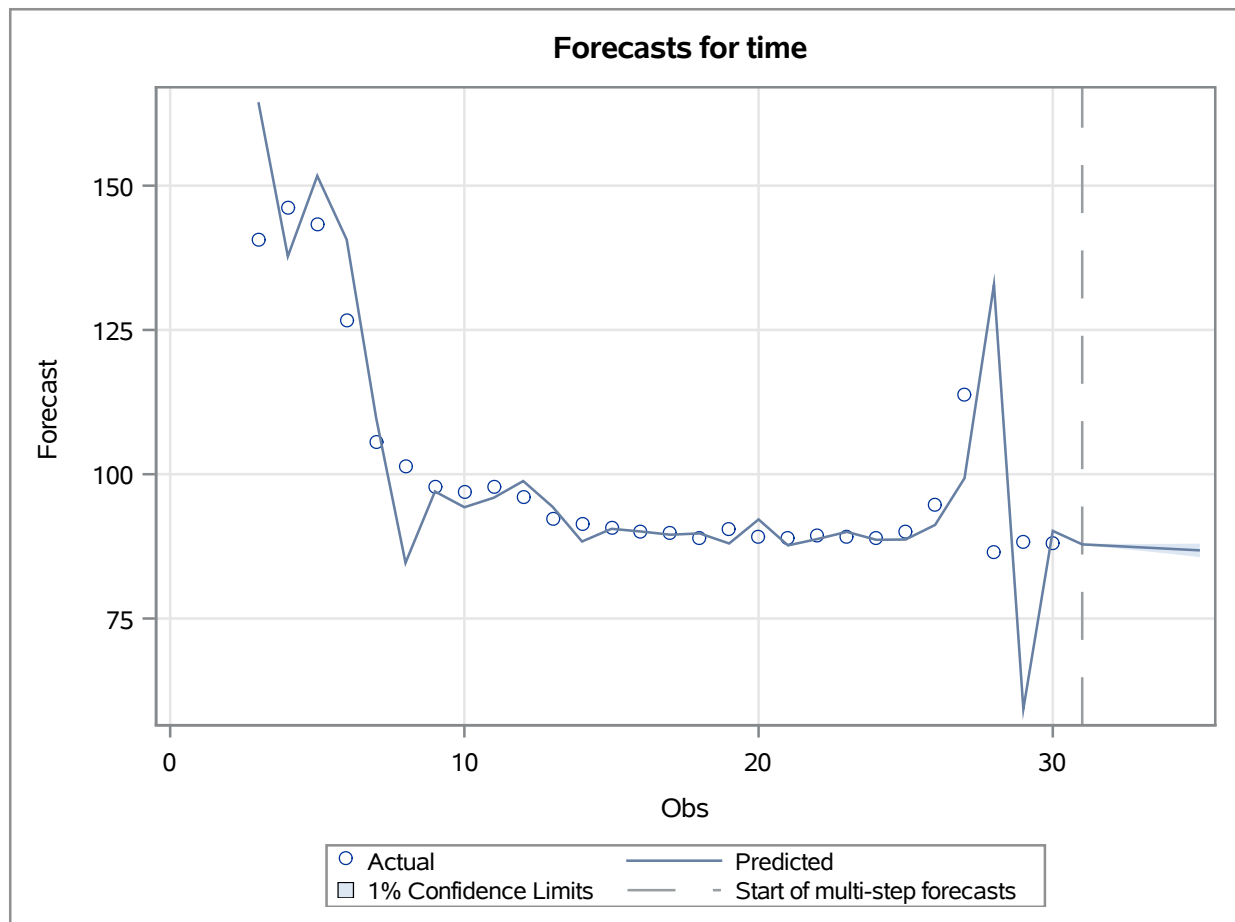
| Forecasts for variable time |          |           |                      |         |
|-----------------------------|----------|-----------|----------------------|---------|
| Obs                         | Forecast | Std Error | 1% Confidence Limits |         |
| 31                          | 87.8460  | 12.6272   | 87.6877              | 88.0043 |
| 32                          | 87.5870  | 28.2352   | 87.2331              | 87.9409 |
| 33                          | 87.3280  | 47.2465   | 86.7358              | 87.9202 |

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| Forecasts for variable time |          |           |                      |         |
|-----------------------------|----------|-----------|----------------------|---------|
| Obs                         | Forecast | Std Error | 1% Confidence Limits |         |
| 34                          | 87.0690  | 69.1618   | 86.2022              | 87.9358 |
| 35                          | 86.8100  | 93.6455   | 85.6363              | 87.9837 |



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

| Outlier Details |          |          |            |                   |
|-----------------|----------|----------|------------|-------------------|
| Obs             | Type     | Estimate | Chi-Square | Approx Prob>ChiSq |
| 27              | Additive | 22.68167 | 208.23     | <.0001            |