Covid Plots

Anthony Gibbons

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1 Introduction

Global Total =54,110,061 as at November 15, 2020

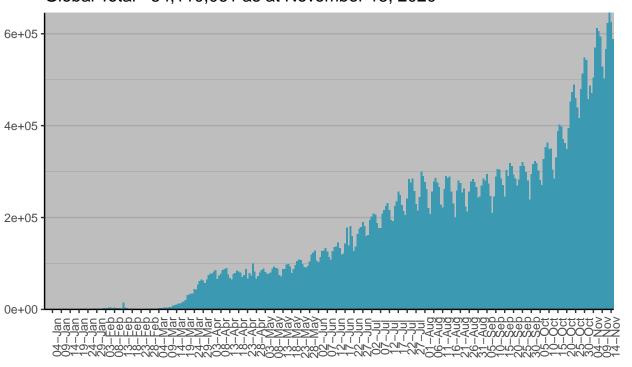


Figure 1: Daily cases Globally to date

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→ basic model, x_n=new cases/day; a=0.89, b=0.505, q=7; r=1.068; ||x*-x||=4106

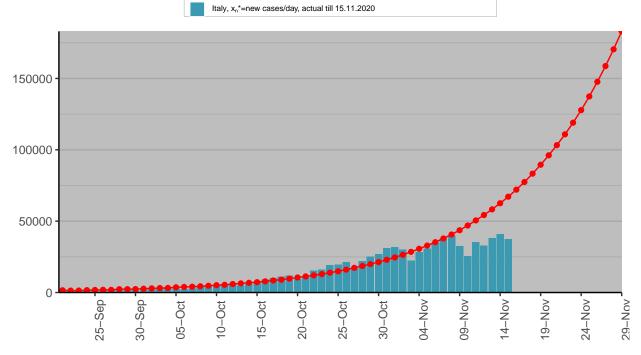


Figure 2: Comparison of the basic model with the actual data, Italy (x-diagram)

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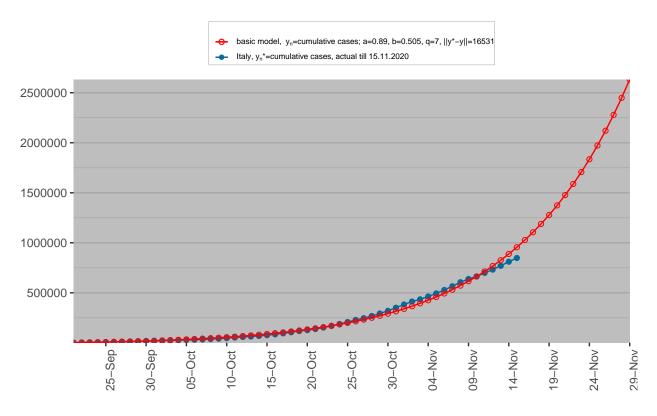


Figure 3: Comparison of the basic model with the actual data, Italy (x-diagram)

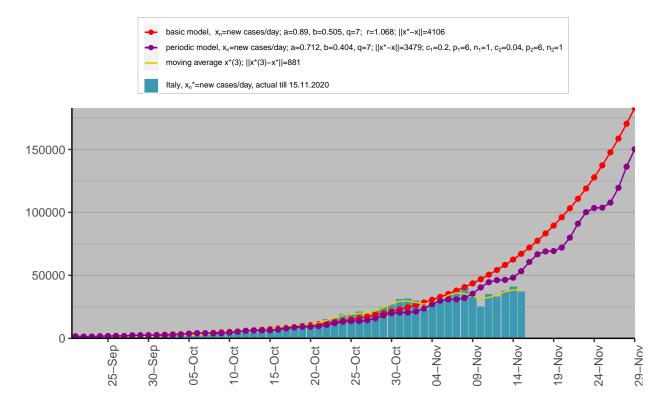


Figure 4: Comparison of basic and periodic models with moving averages, Italy

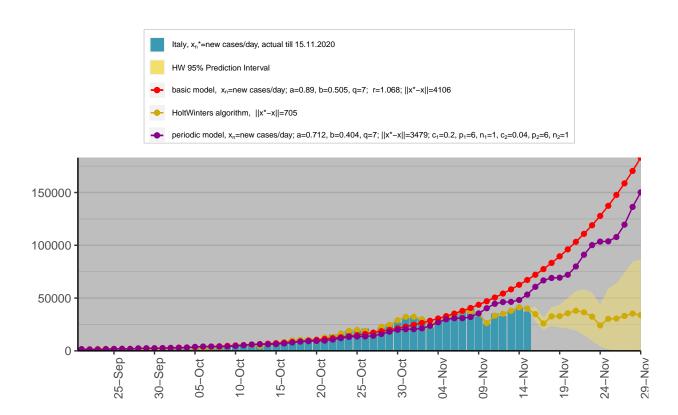


Figure 5: Comparison of basic and periodic models with HoltWinters model, Italy

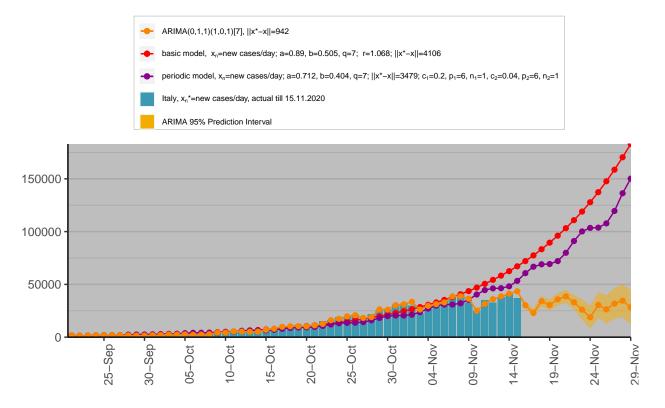


Figure 6: Comparison of basic and periodic models with ARIMA model, Italy

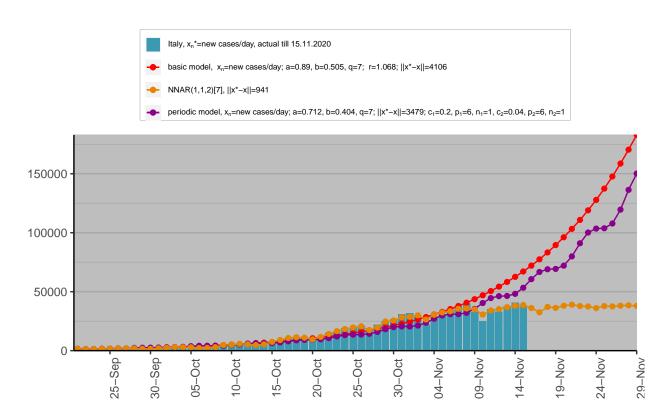


Figure 7: Comparison of basic and periodic models with Neural Network model, Italy

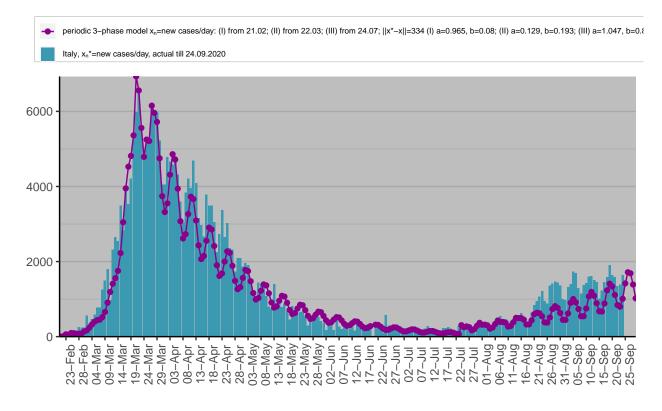
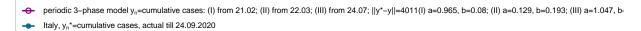


Figure 8: A multi-phase periodic model for Italy (x-diagram)



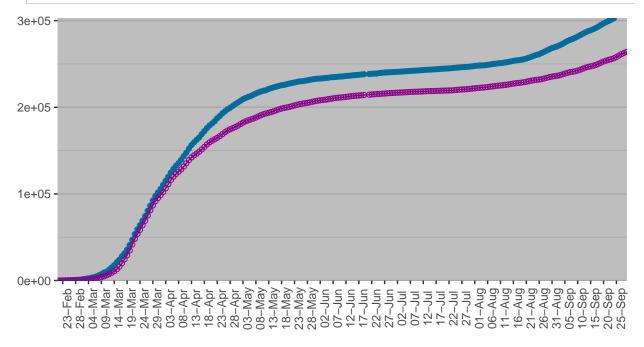


Figure 9: A multi-phase periodic model for Italy (y-diagram)

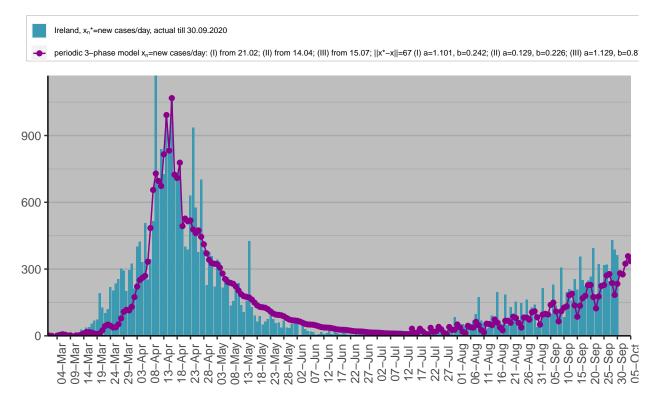
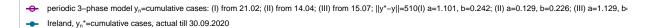


Figure 10: A multi-phase periodic model for Ireland (x-diagram)



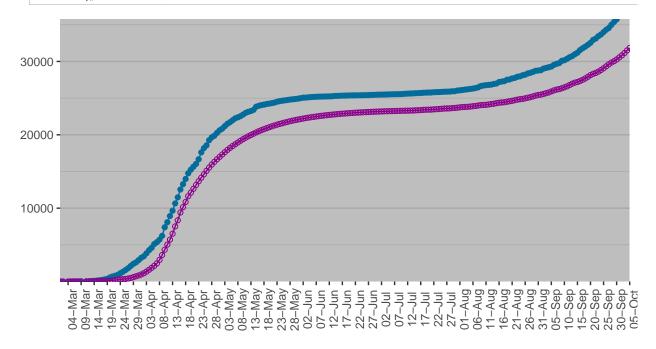


Figure 11: A multi-phase periodic model for Ireland (y-diagram)

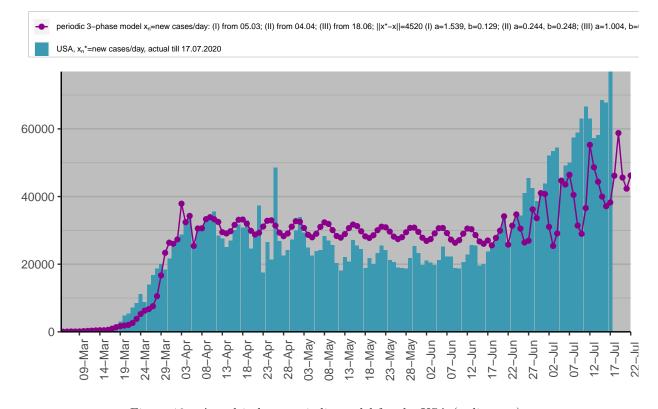
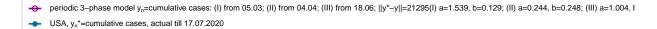


Figure 12: A multi-phase periodic model for the USA (x-diagram)



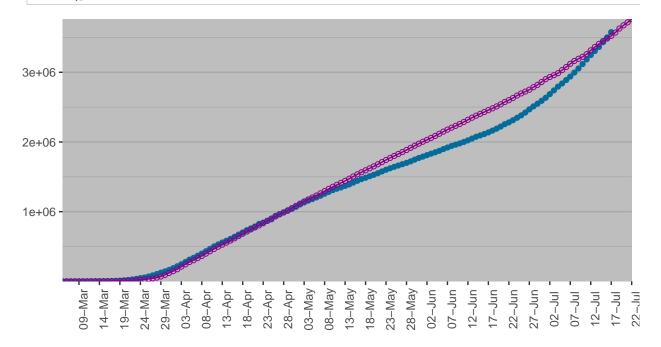


Figure 13: A multi-phase periodic model for the USA (y-diagram)

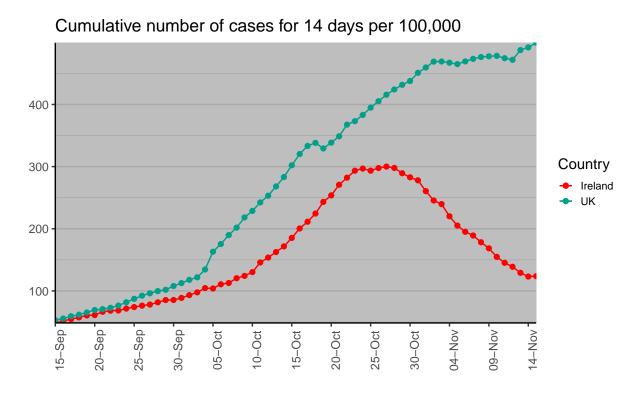


Figure 14: A Comparison of the cumulative number of cases for 14 days per 100,000 of the population - Ireland vs UK

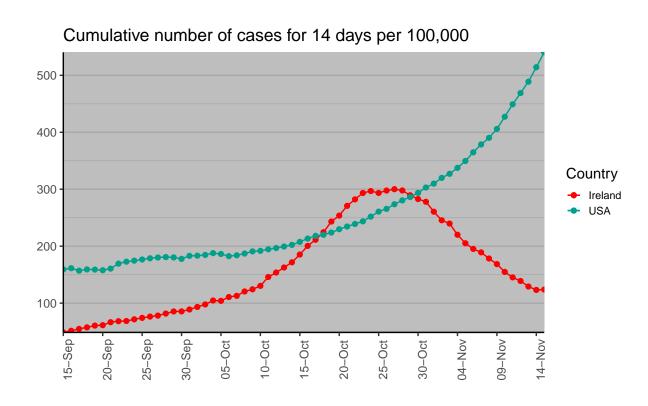


Figure 15: A Comparison of the cumulative number of cases for 14 days per 100,000 of the populaiton - Ireland vs USA

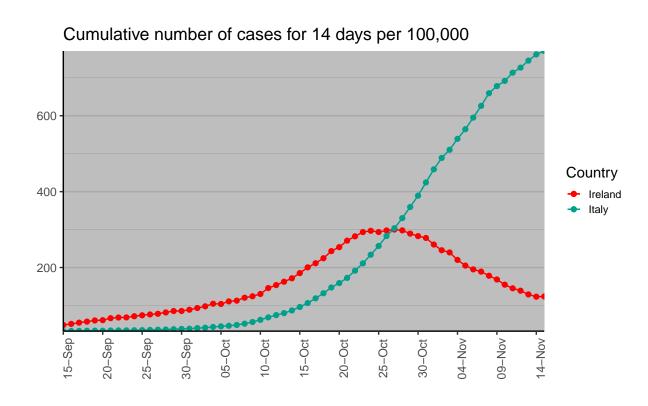


Figure 16: A Comparison of the cumulative number of cases for 14 days per 100,000 of the population - Ireland vs Italy