

# Covid Plots

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20/12/2020

## 1 Introduction

```
## Warning: Removed 175 rows containing missing values (position_stack).
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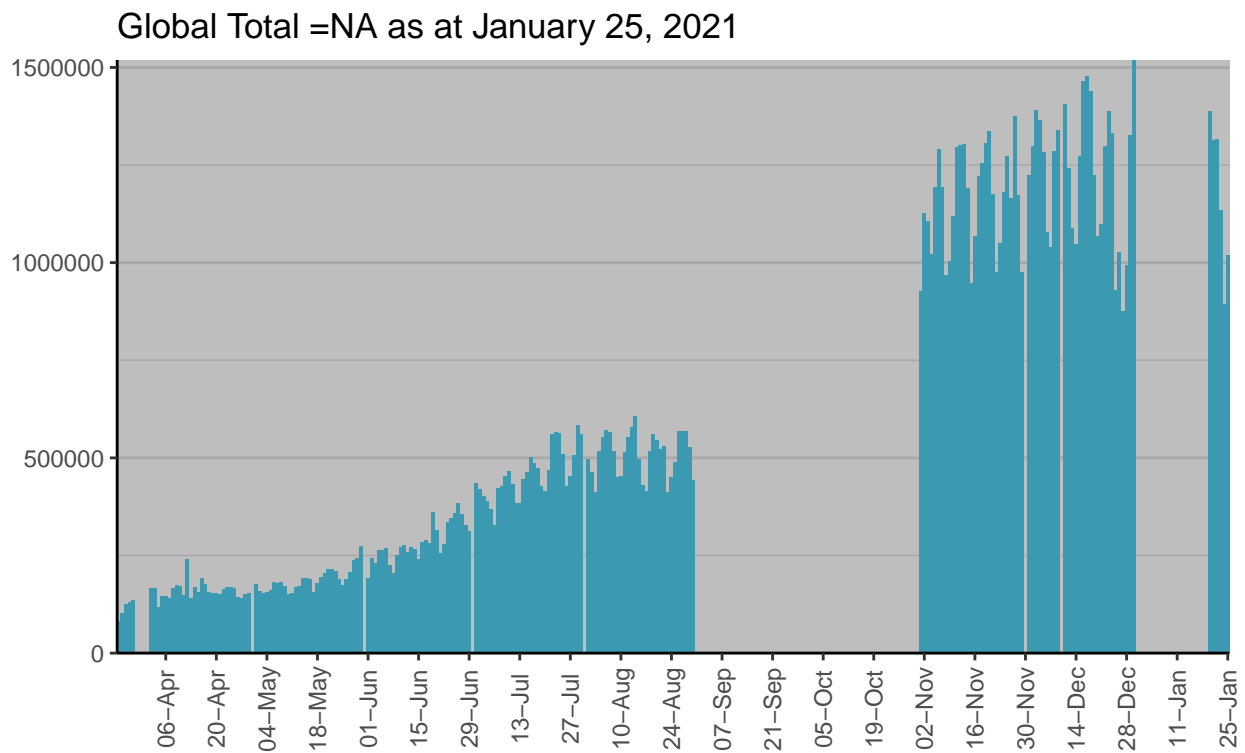


Figure 1: Daily cases Globally to date

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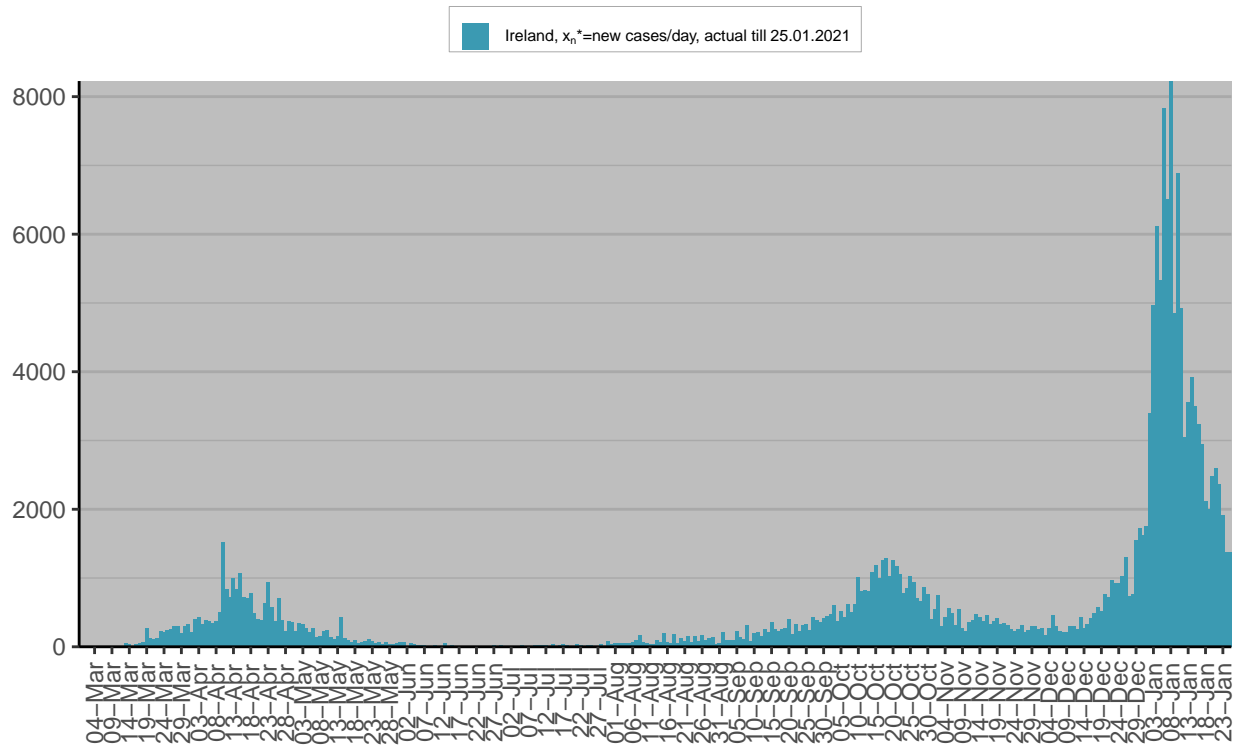


Figure 2:  $x$ -diagram for Ireland: the numbers of actually registered daily cases

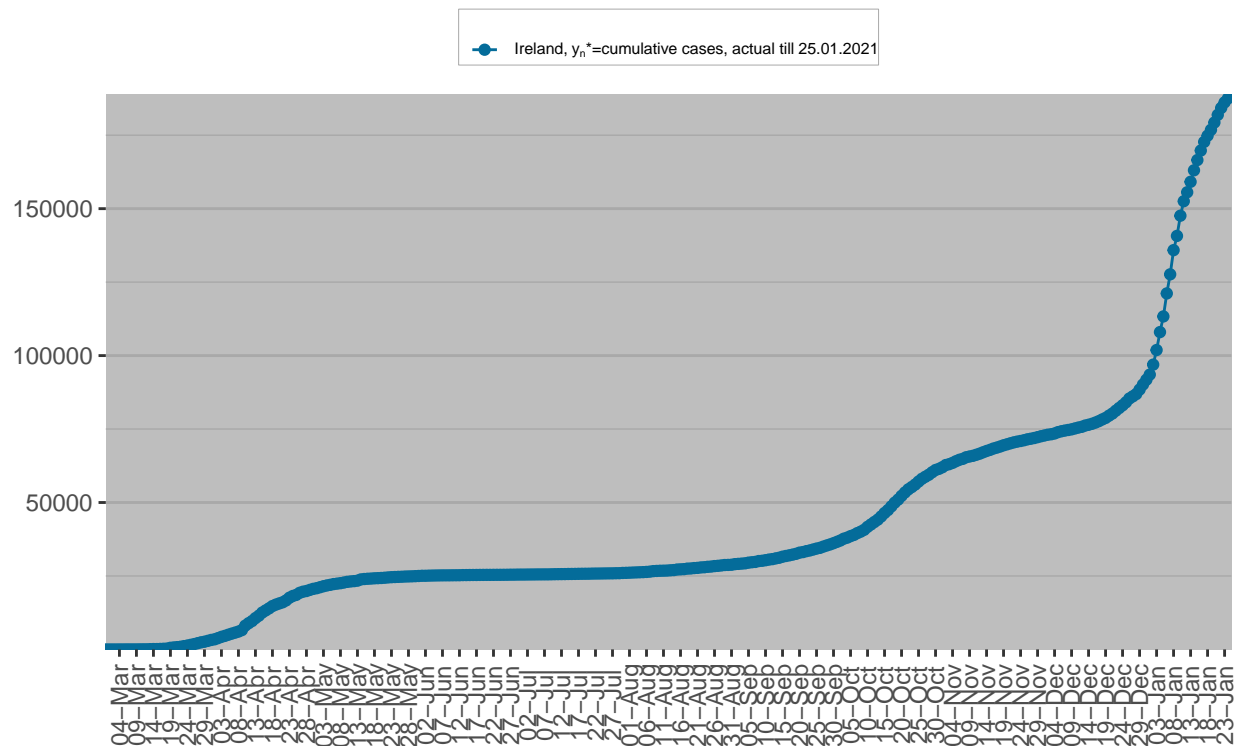


Figure 3:  $x$ -diagram for Ireland: the numbers of actually registered daily cases

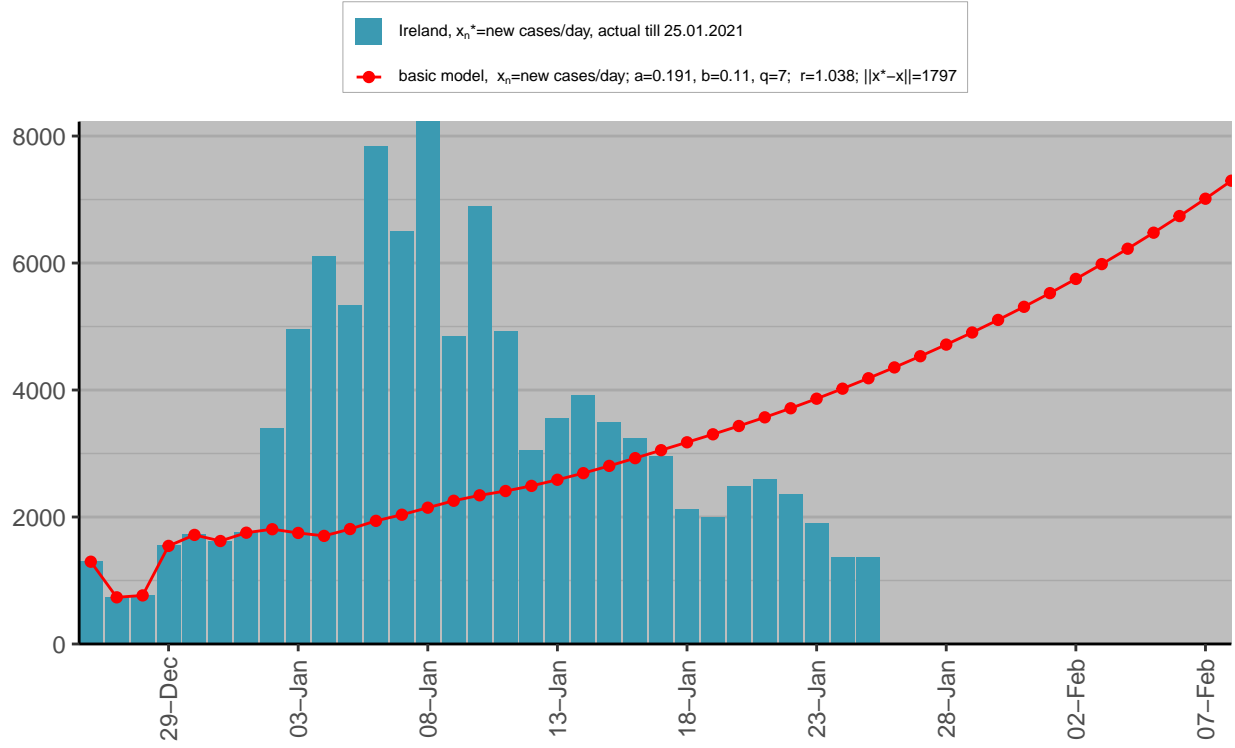


Figure 4: Comparison of the basic model with the actual data, Ireland ( $x$ -diagram)

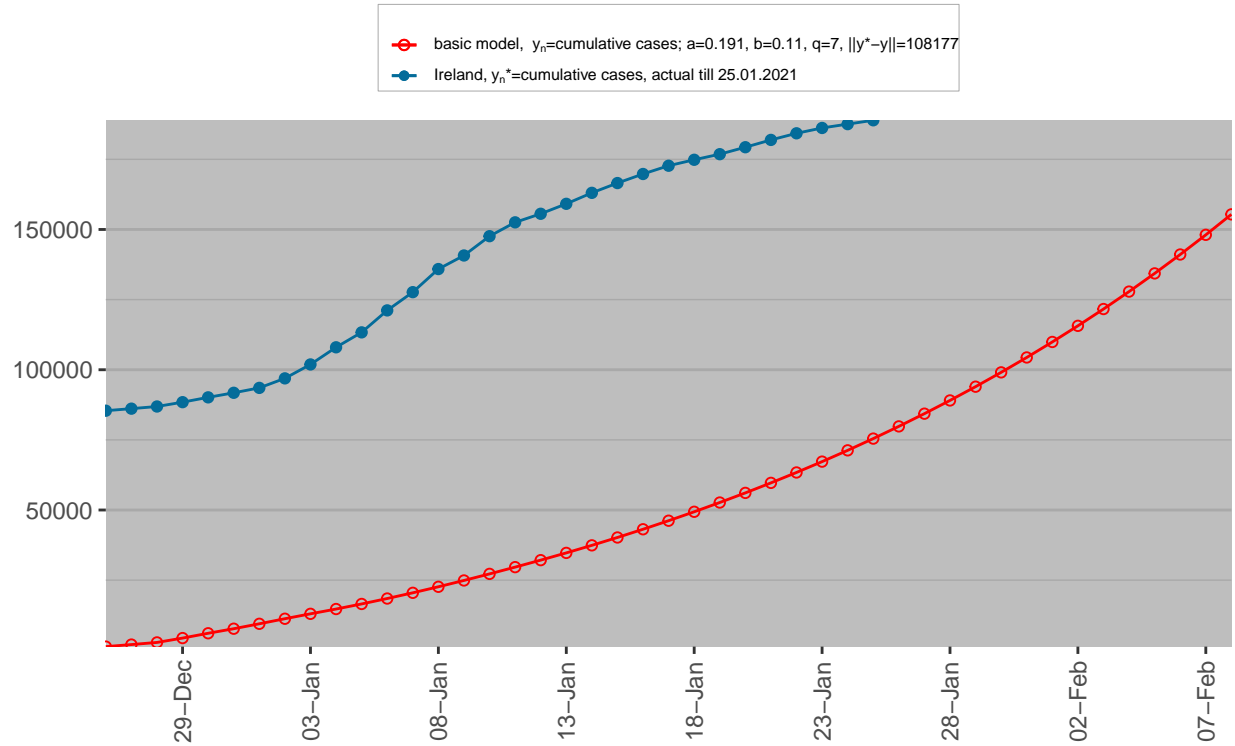


Figure 5: Comparison of the basic model with the actual data, Ireland ( $x$ -diagram)

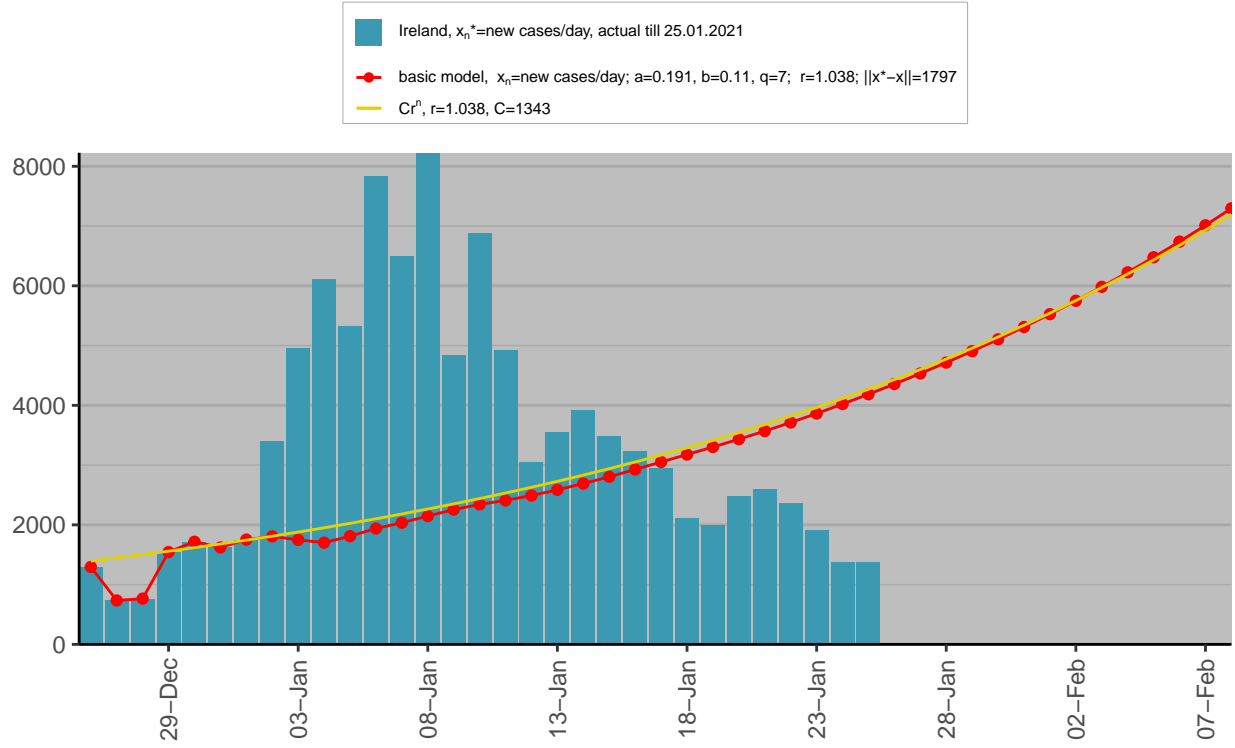


Figure 6: Comparison of  $x_n^*$ ,  $x_n$  and  $Cr^n$ , Ireland

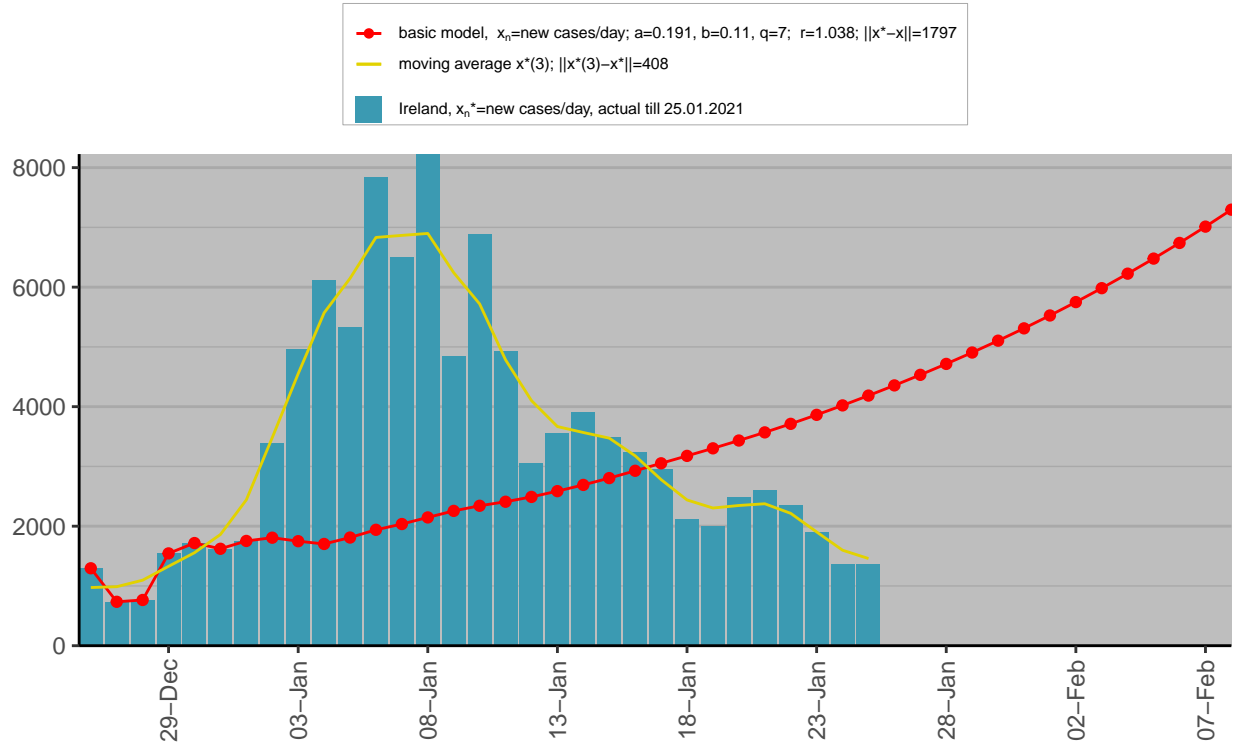


Figure 7: Comparison of basic model with moving averages, Ireland

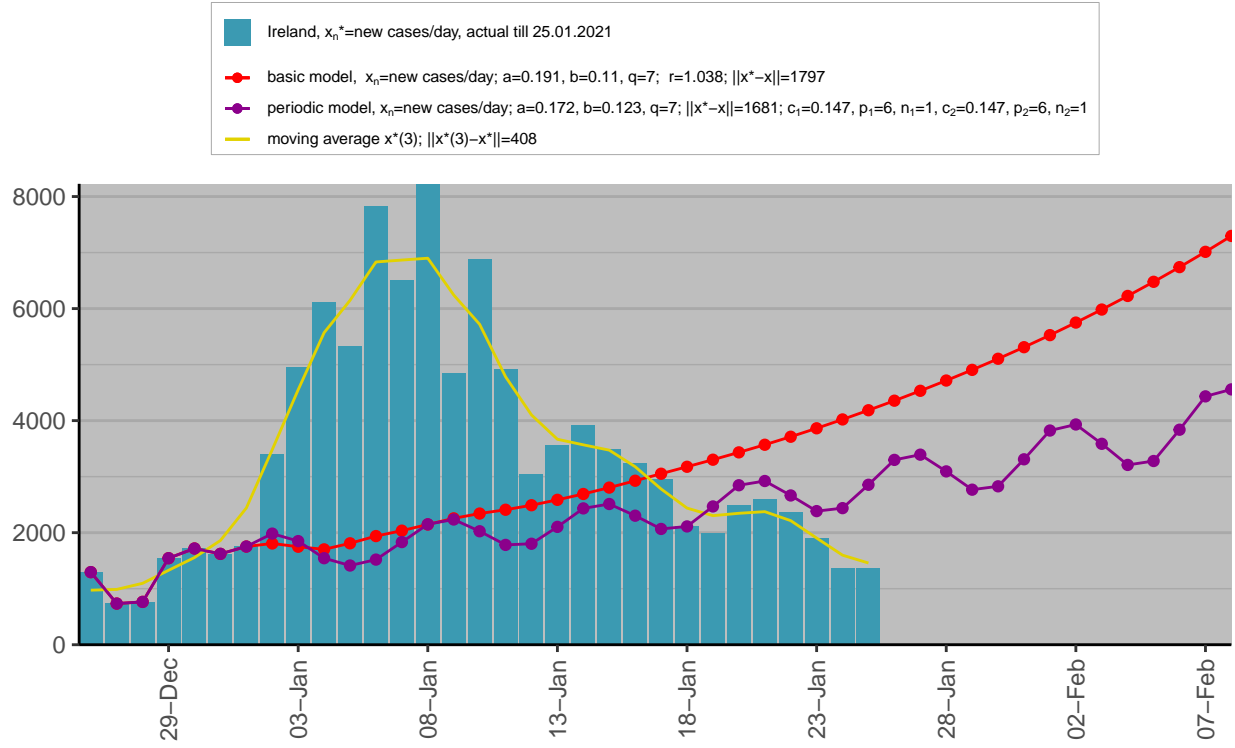


Figure 8: Comparison of basic and periodic models with moving averages, Ireland

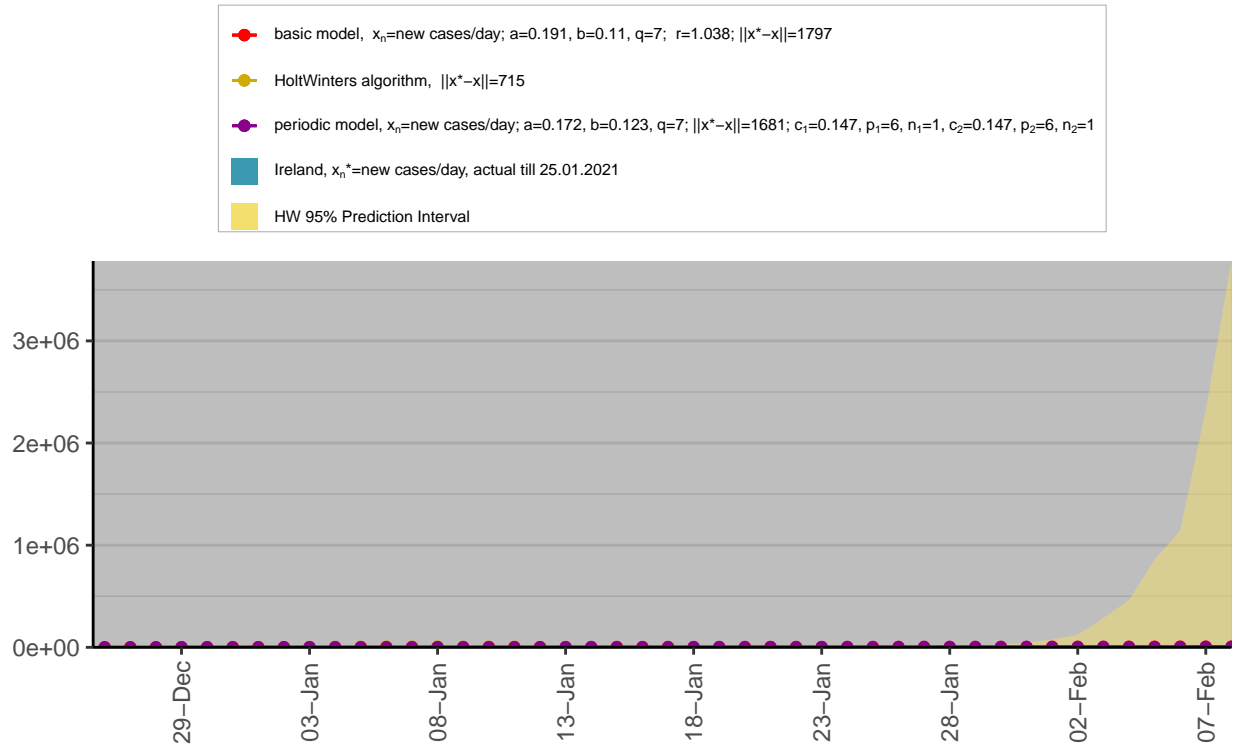


Figure 9: Comparison of basic and periodic models with HoltWinters model, Ireland

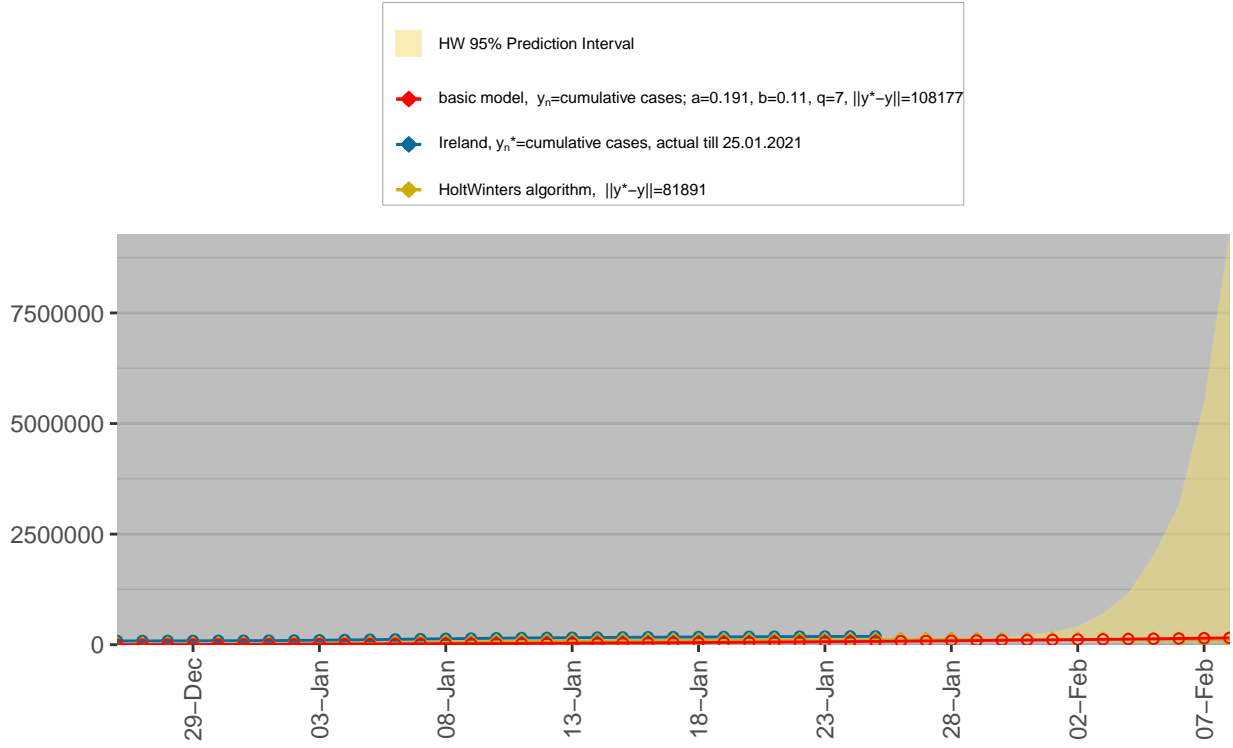


Figure 10: Comparison of Cumulative basic and periodic models with HoltWinters Prediction, Ireland

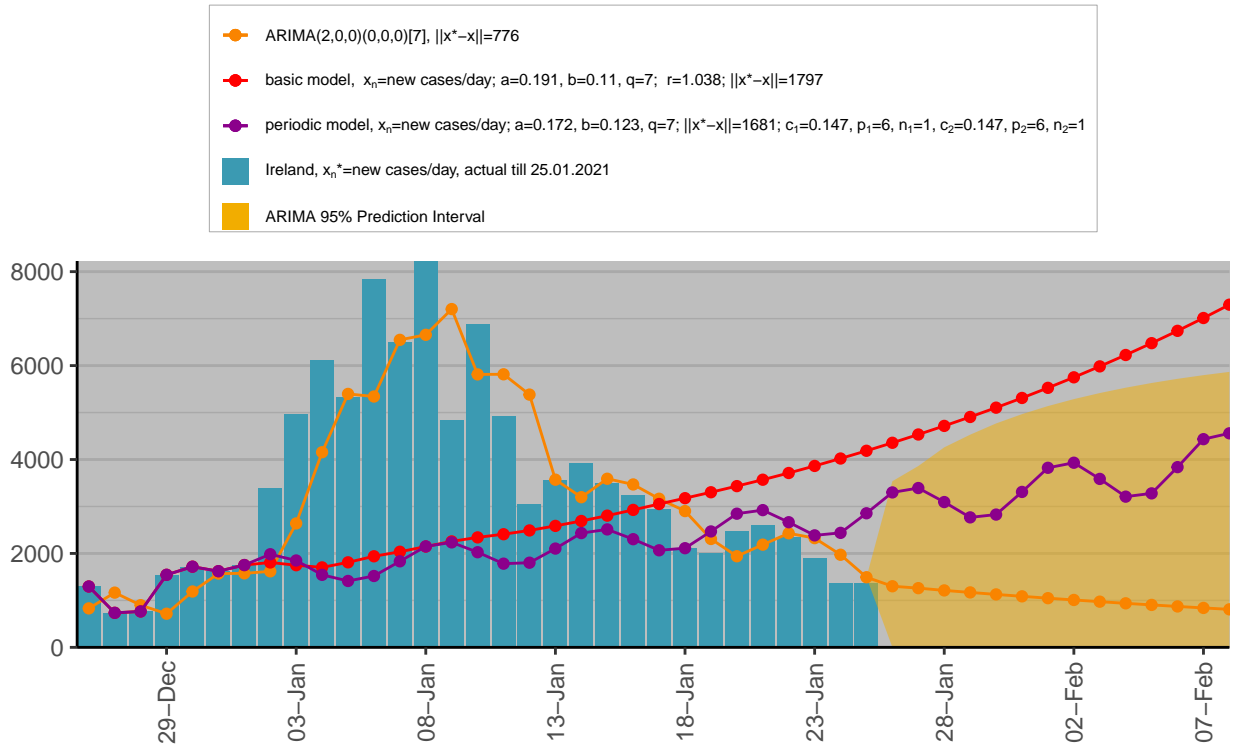


Figure 11: Comparison of basic and periodic models with ARIMA model, Ireland

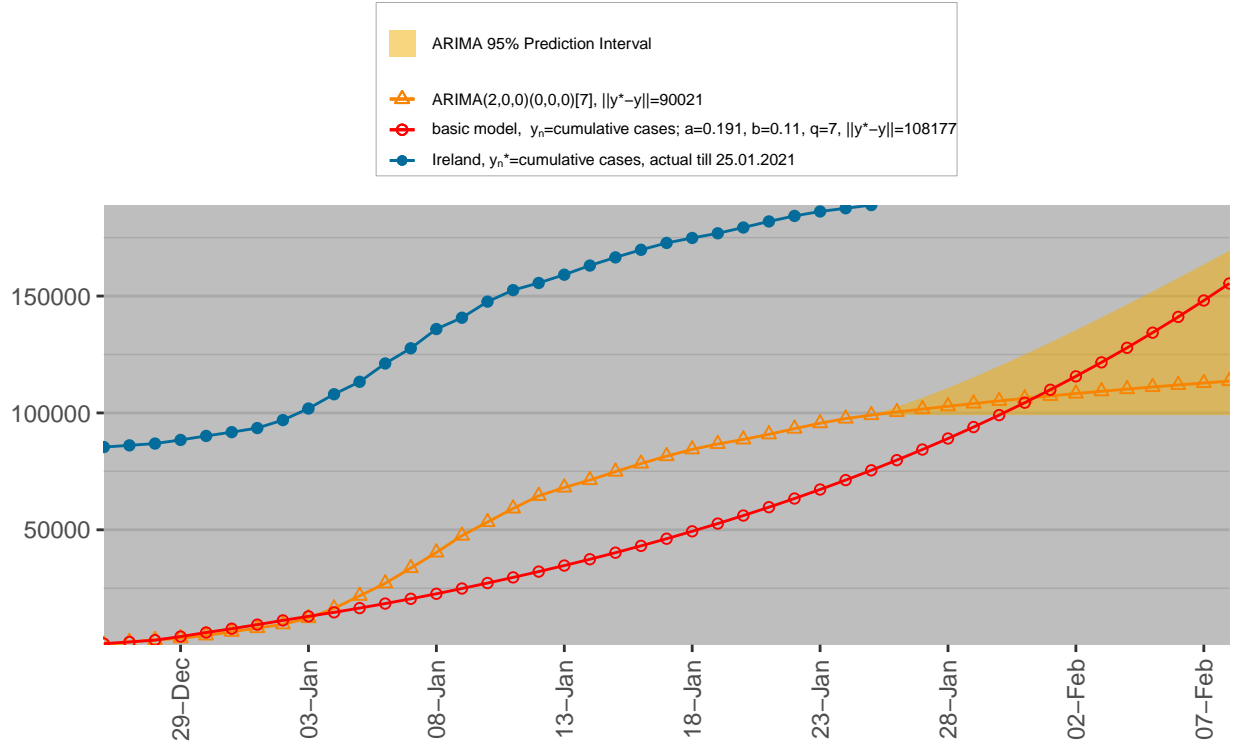


Figure 12: Comparison of Cumulative basic and periodic models with ARIMA model, Ireland

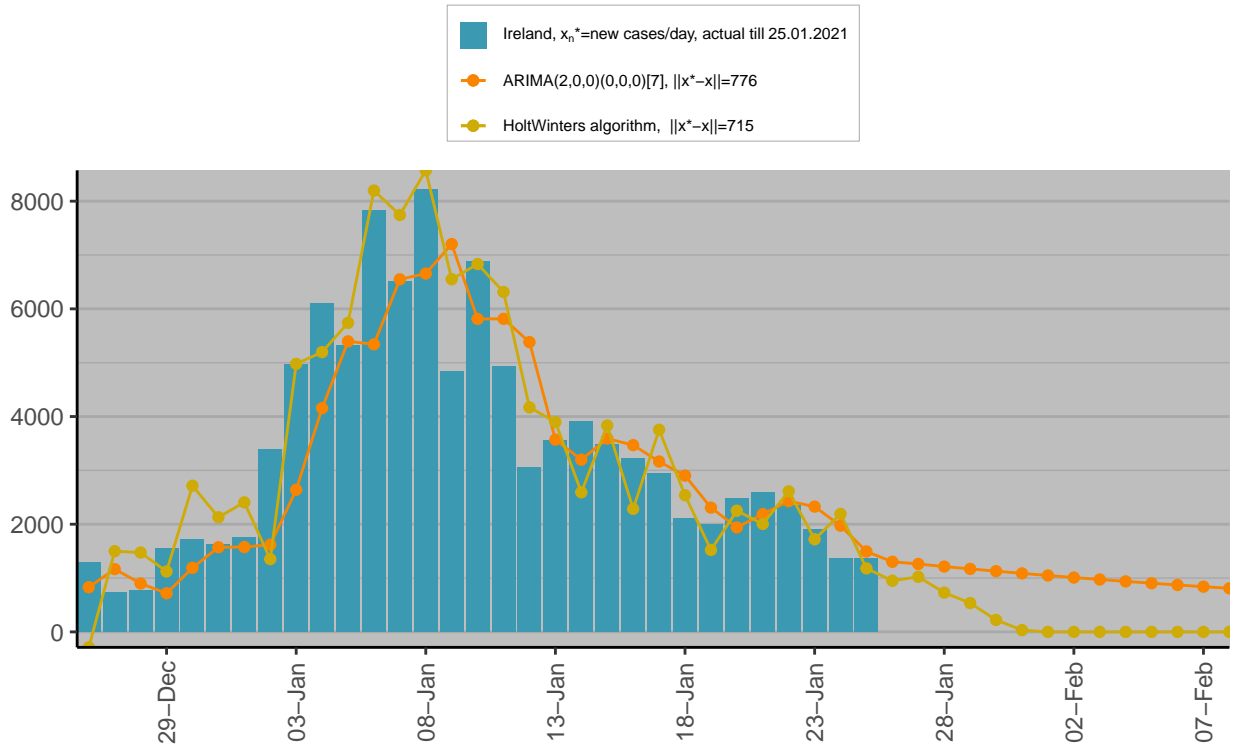


Figure 13: Comparison of HoltWinters and ARIMA models, Ireland

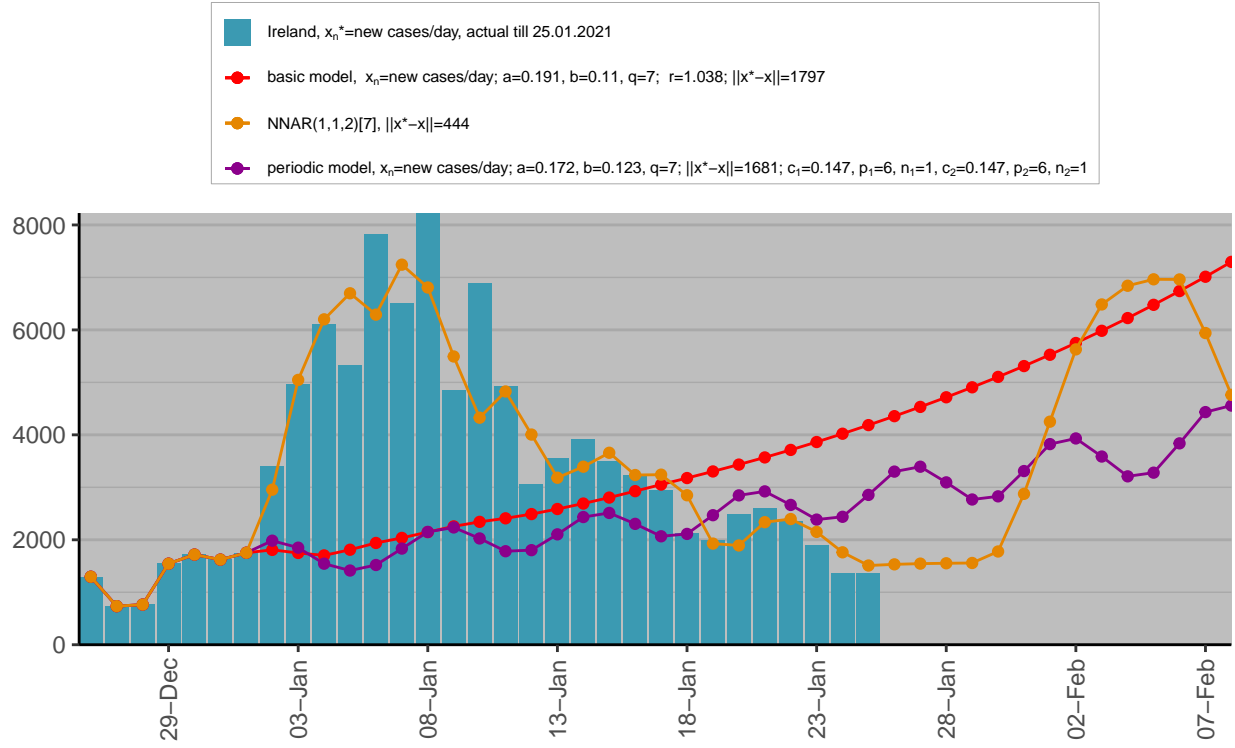


Figure 14: Comparison of basic and periodic models with Neural Network model, Ireland

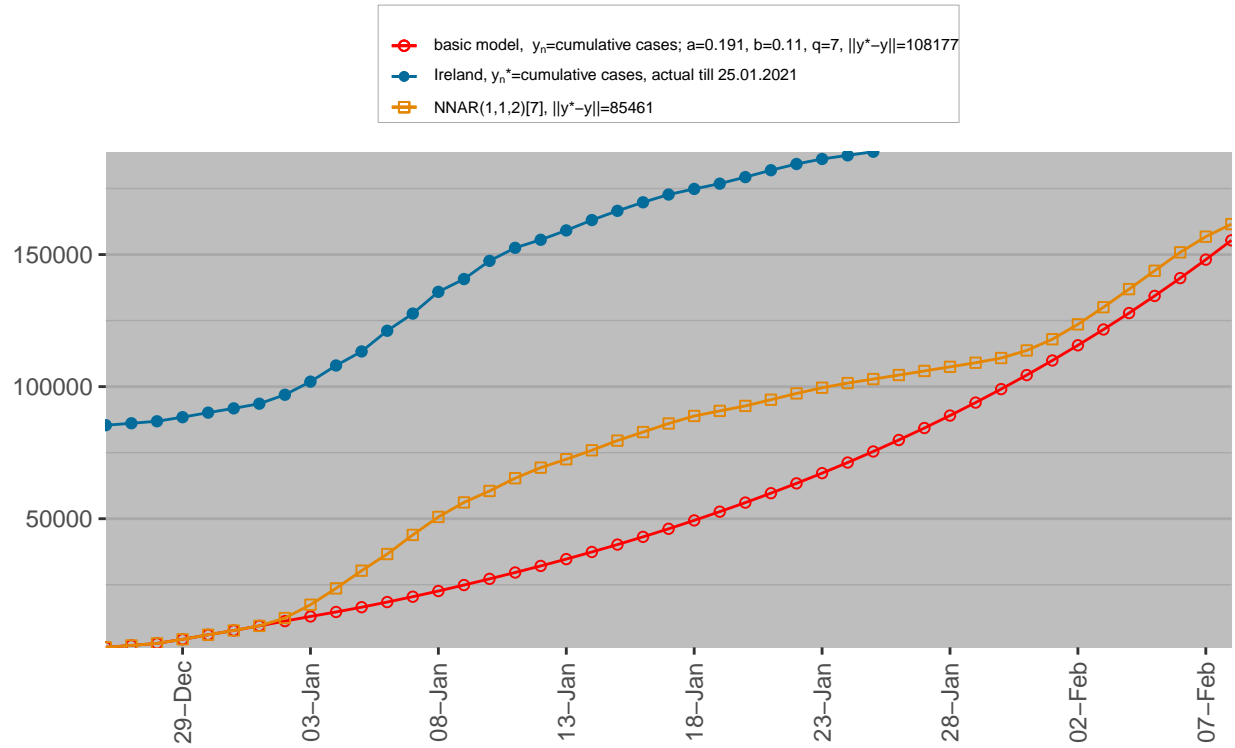


Figure 15: Comparison of Cumulative basic and periodic models with Neural Network model, Ireland



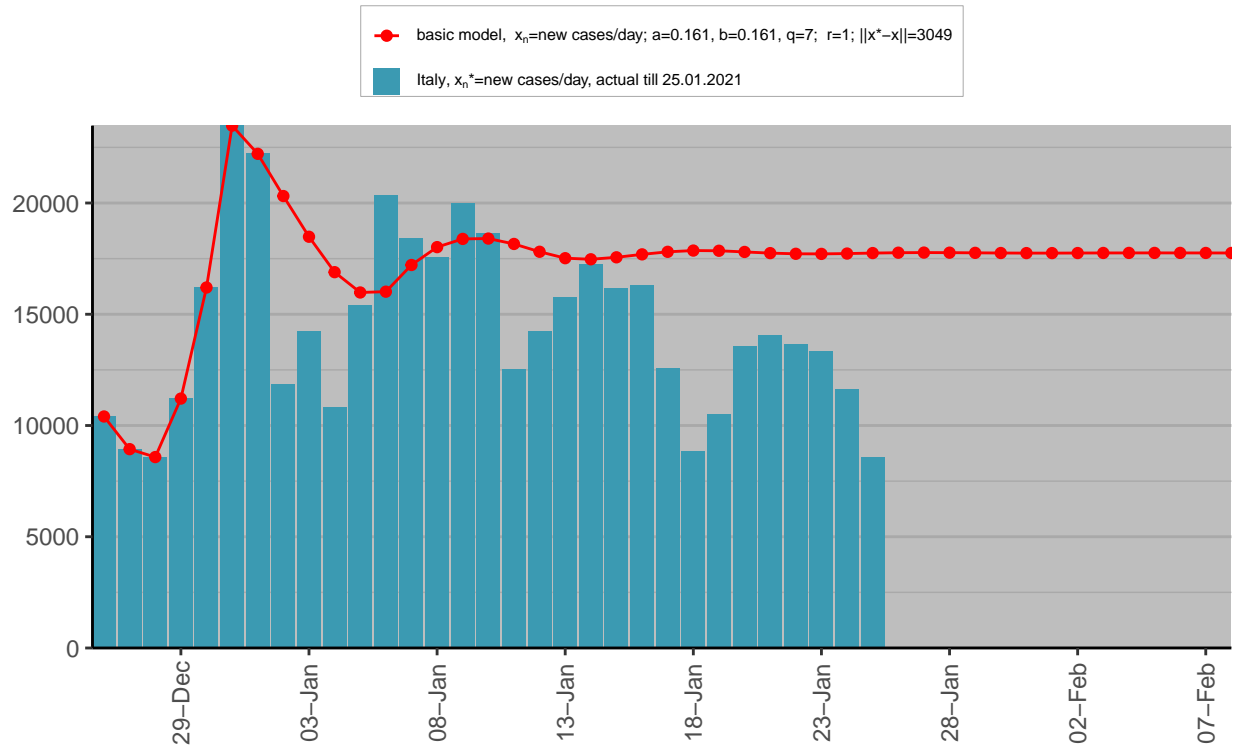


Figure 16: Comparison of the basic model with the actual data, Italy ( $x$ -diagram)

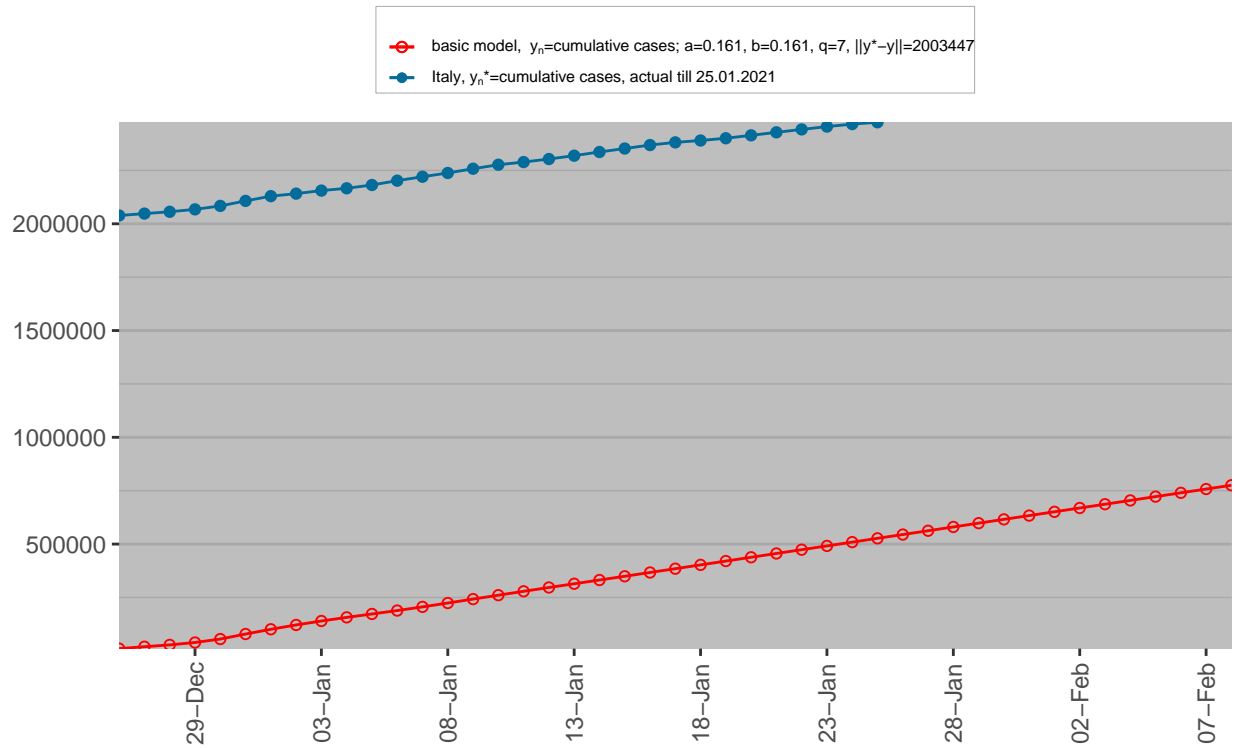


Figure 17: Comparison of the basic model with the actual data, Italy ( $x$ -diagram)

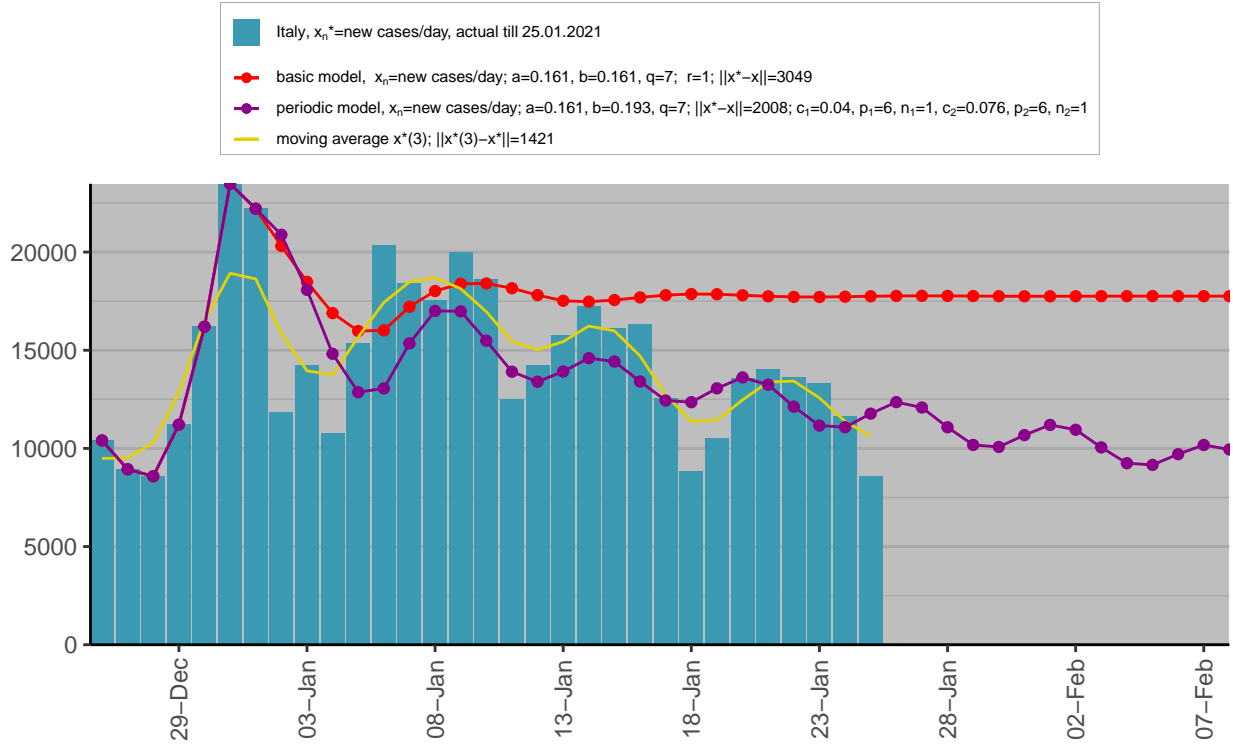


Figure 18: Comparison of basic and periodic models with moving averages, Italy

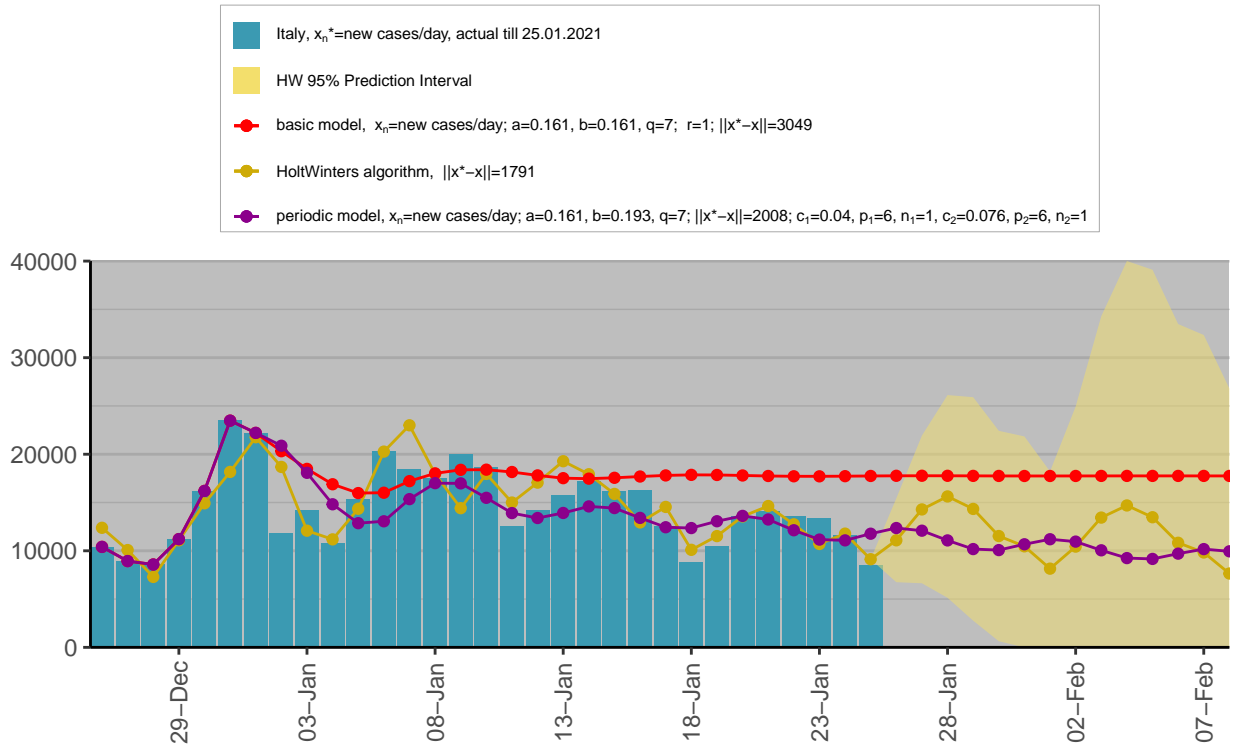


Figure 19: Comparison of basic and periodic models with HoltWinters model, Italy

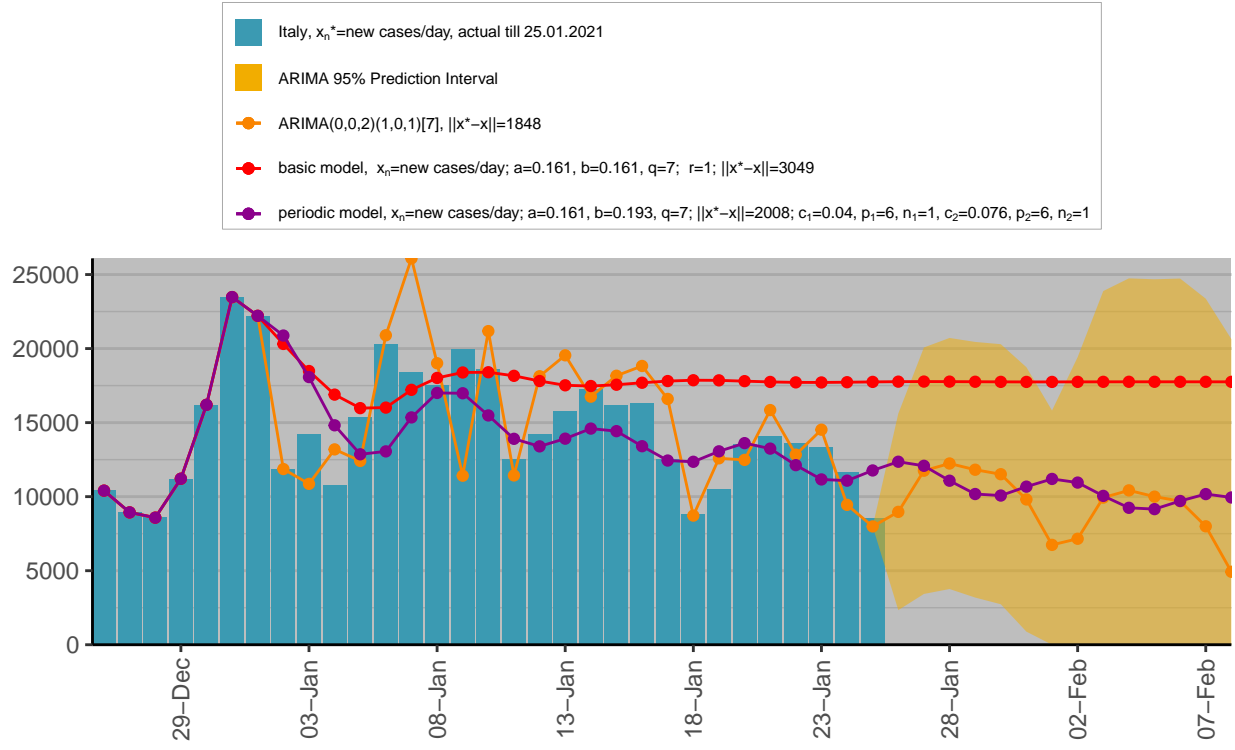


Figure 20: Comparison of basic and periodic models with ARIMA model, Italy

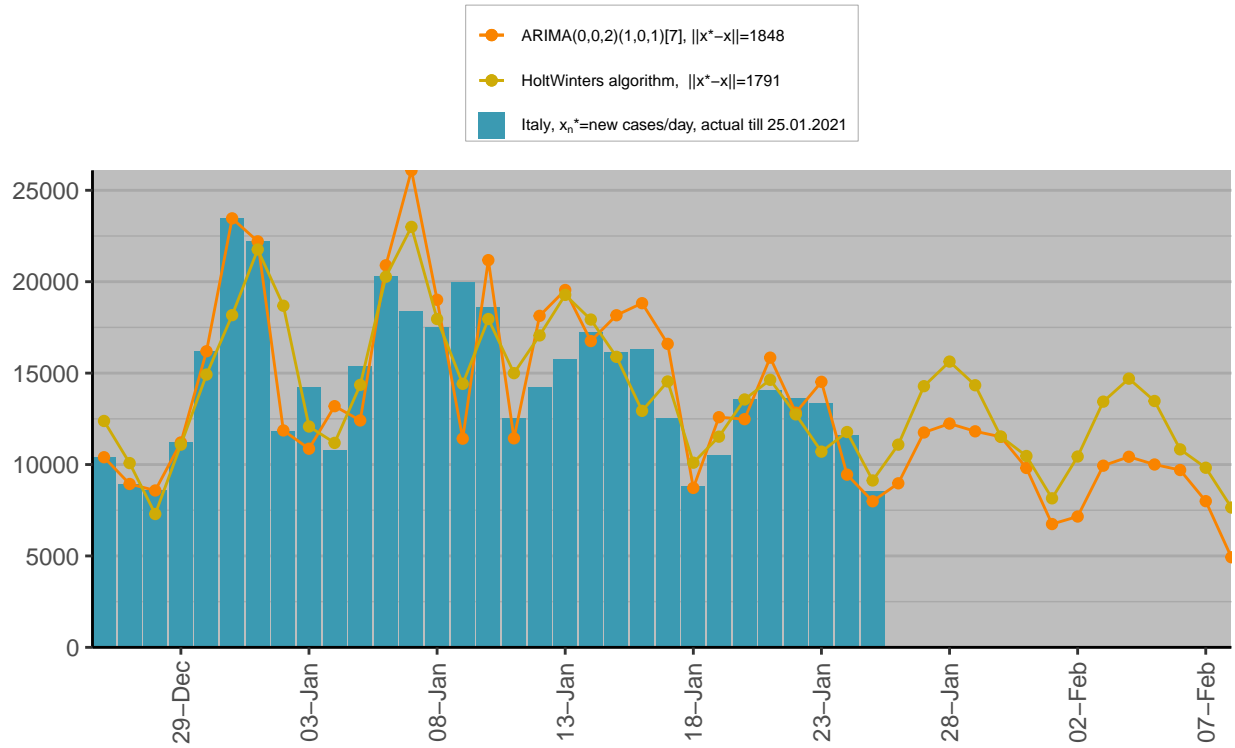


Figure 21: Comparison of HoltWinters and ARIMA models, Italy

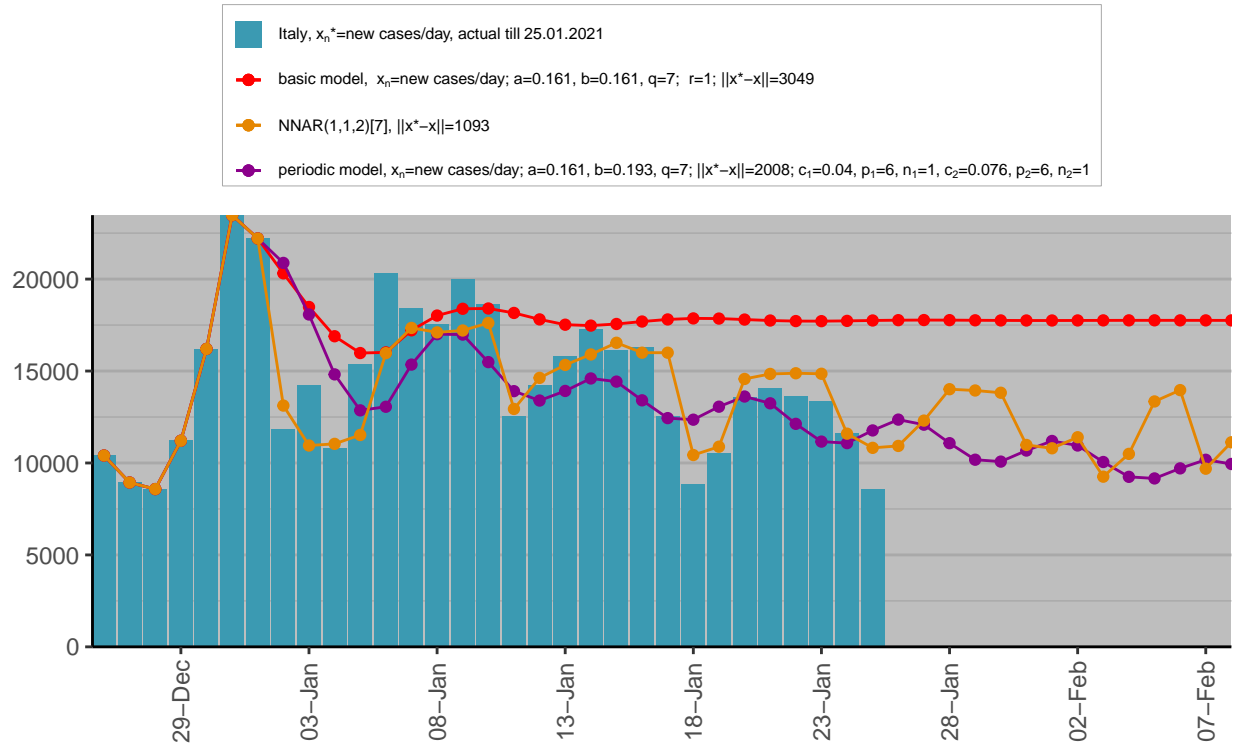


Figure 22: Comparison of basic and periodic models with Neural Network model, Italy

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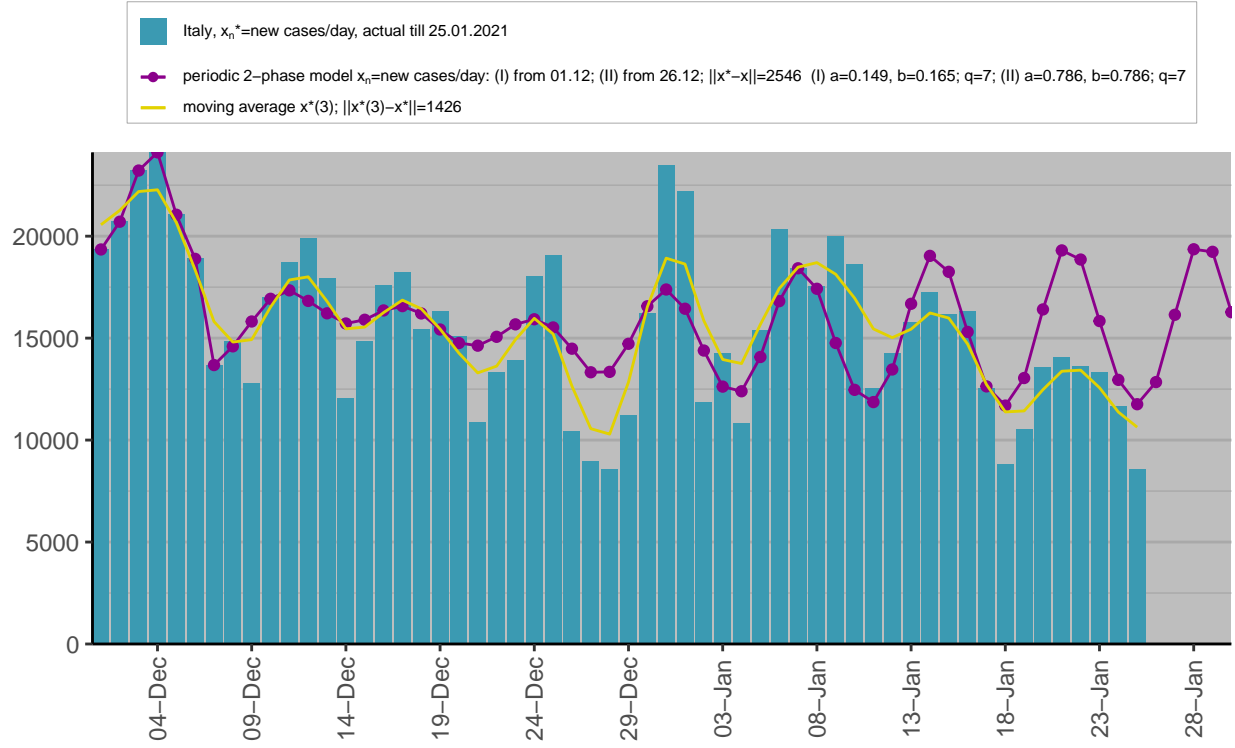


Figure 23: A multi-phase periodic model for Italy (x-diagram)

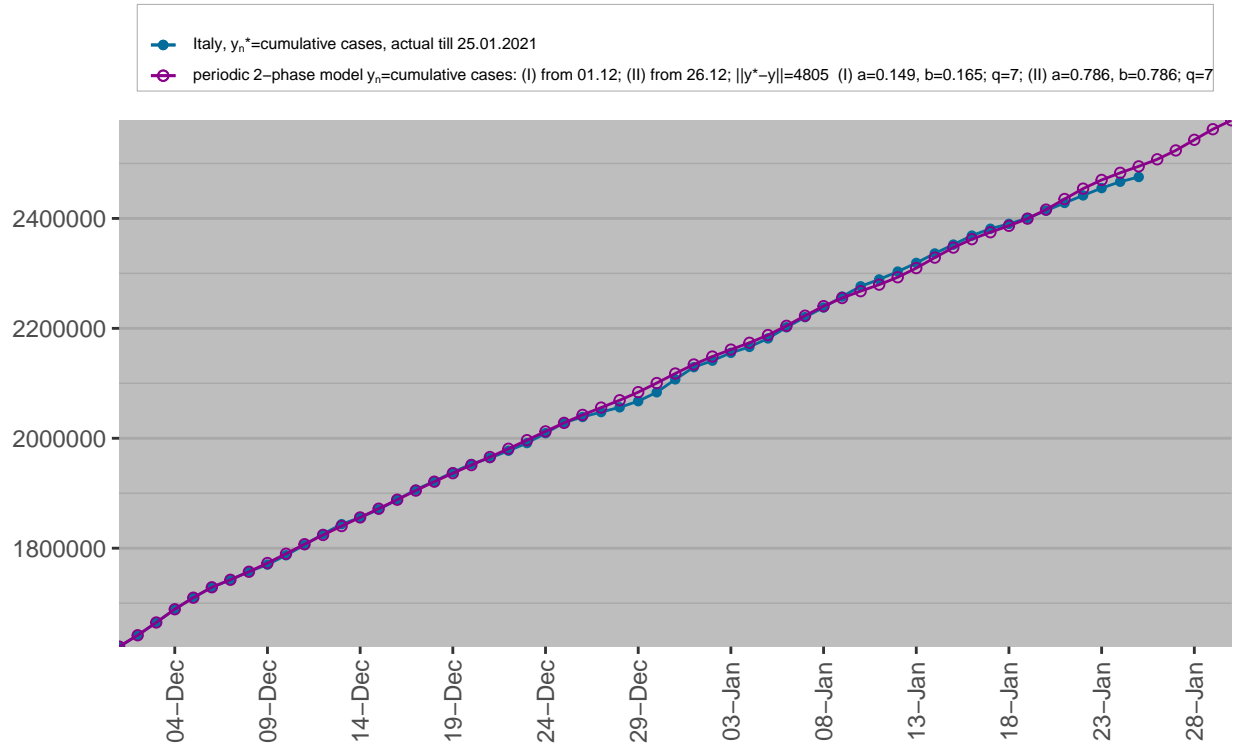


Figure 24: A multi-phase periodic model for Italy (y-diagram)

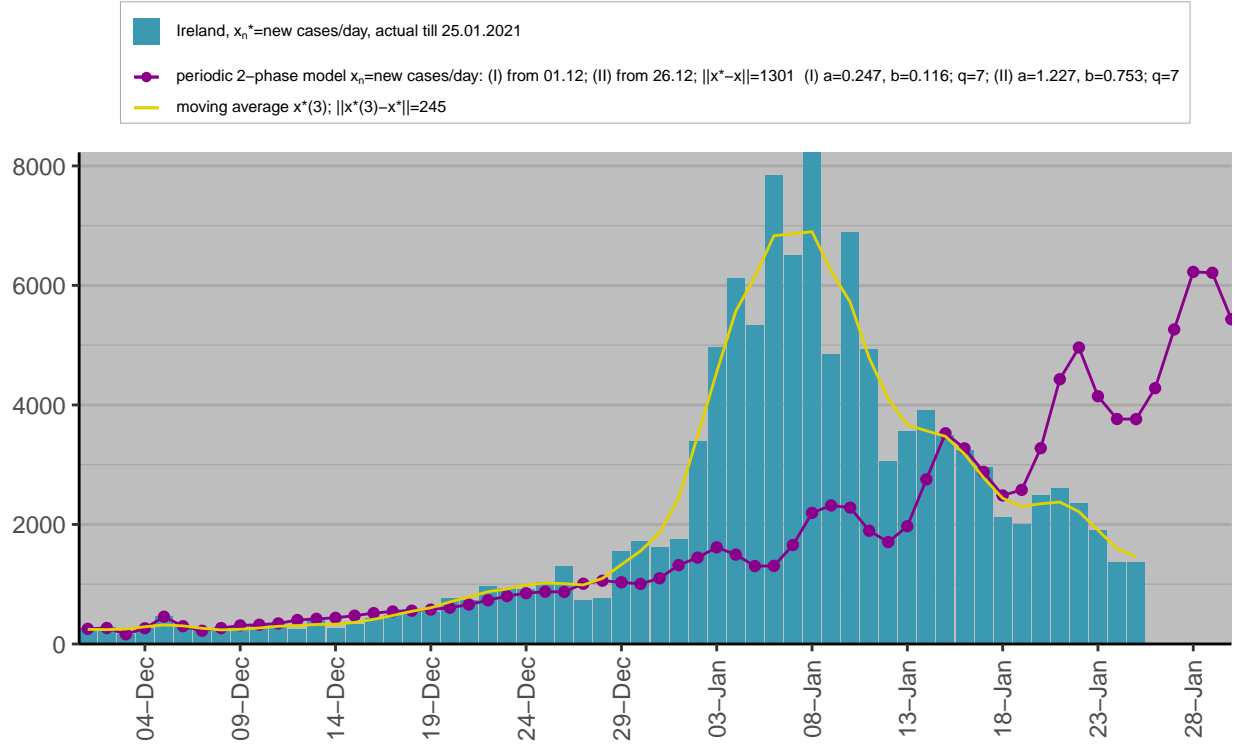


Figure 25: A multi-phase periodic model for Ireland (x-diagram)

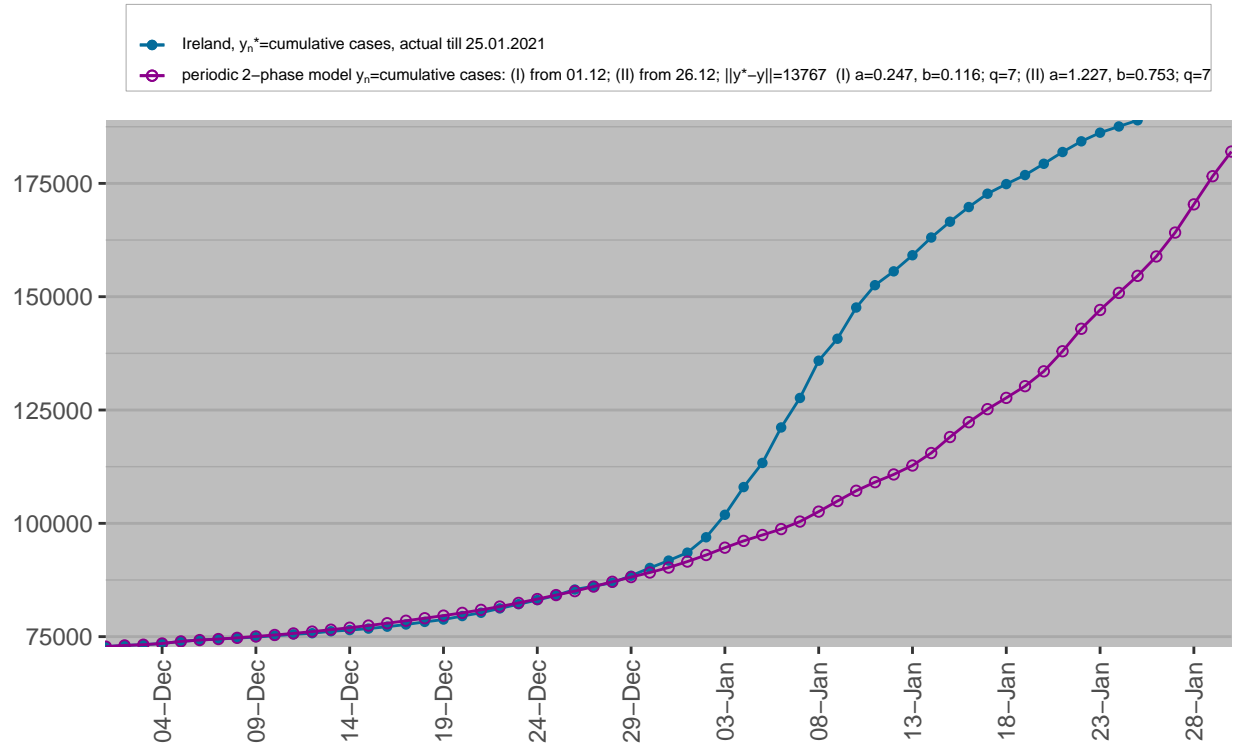


Figure 26: A multi-phase periodic model for Ireland (y-diagram)