

# **Branching stochastic processes as models of Covid-19 epidemic development**

**Var45 - week 53**

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### **Abstract**

The results presented here are obtained using the methodology proposed in the paper <https://arxiv.org/abs/2004.14838> for the country Var45. The data comes from European Centre for Disease Prevention and Control available at <https://opendata.ecdc.europa.eu/covid19/casedistribution/csv>.

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## Table of Contents

|  |   |
|--|---|
| 1. Observed Infection data .....                               | 1 |
| 2. Estimating of the main parameter and some predictions ..... | 3 |

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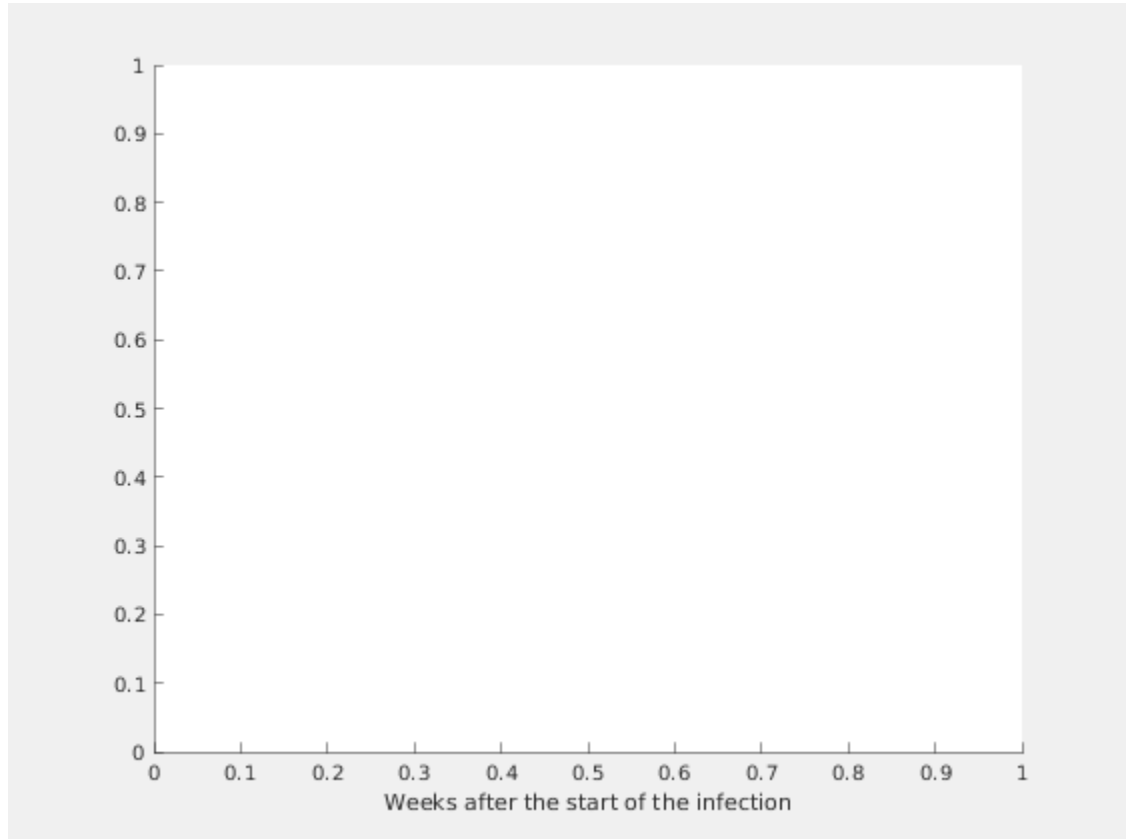
## List of Figures

|   |   |
|---|---|
| 1.1. Number of the weekly reported laboratory-confirmed cases .....                   | 1 |
| 1.2. Number of the total registered cases .....                                       | 2 |
| 2.1. Expected number of the nonregistered infected individuals with immigration ..... | 3 |

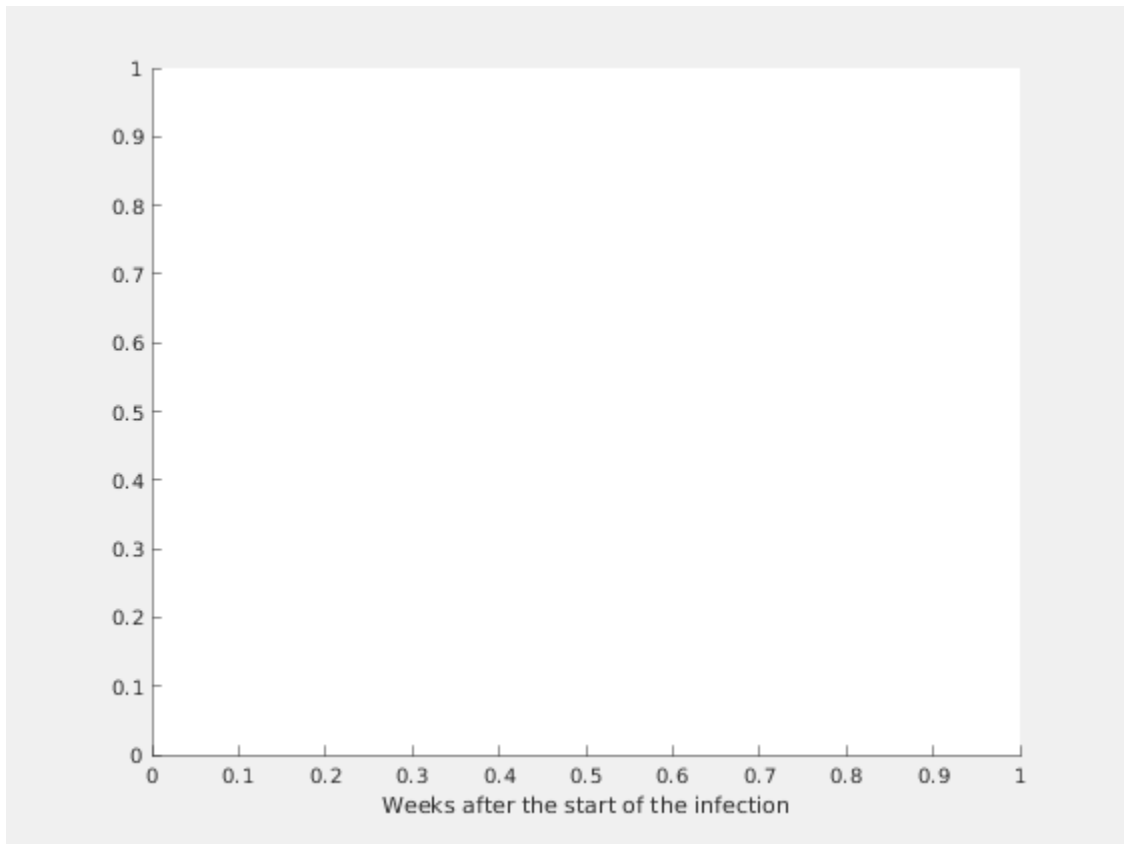
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# Chapter 1. Observed Infection data

Figure 1.1. Number of the weekly reported laboratory-confirmed cases

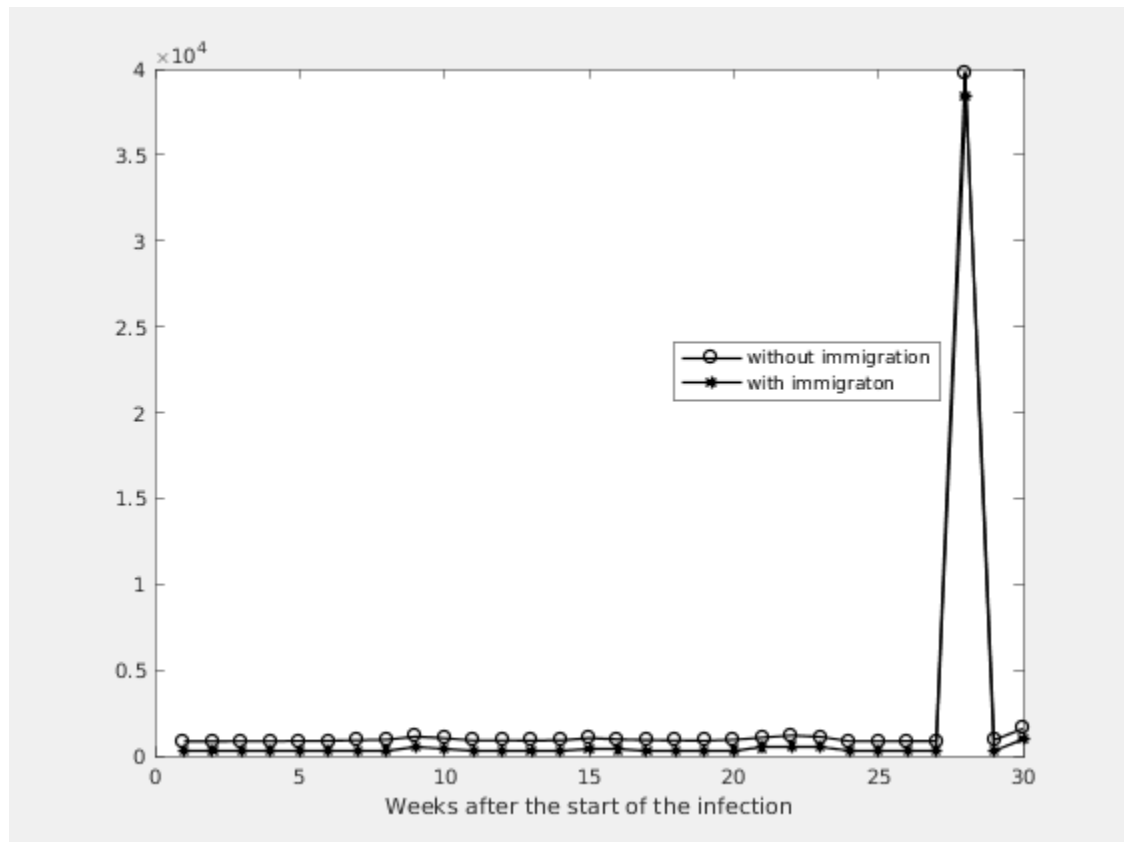


**Figure 1.2. Number of the total registered cases**



# Chapter 2. Estimating of the main parameter and some predictions

Figure 2.1. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

| k | m      | ci              | alpha  | A1 | M1 |
|---|--------|-----------------|--------|----|----|
| 4 | 0.0000 | 0.0000 - 0.0000 | 0.0000 | 0  | 0  |