

Branching stochastic processes as models of Covid-19 epidemic development

Var129 - 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 Var129. 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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Chapter 1. Observed Infection data

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

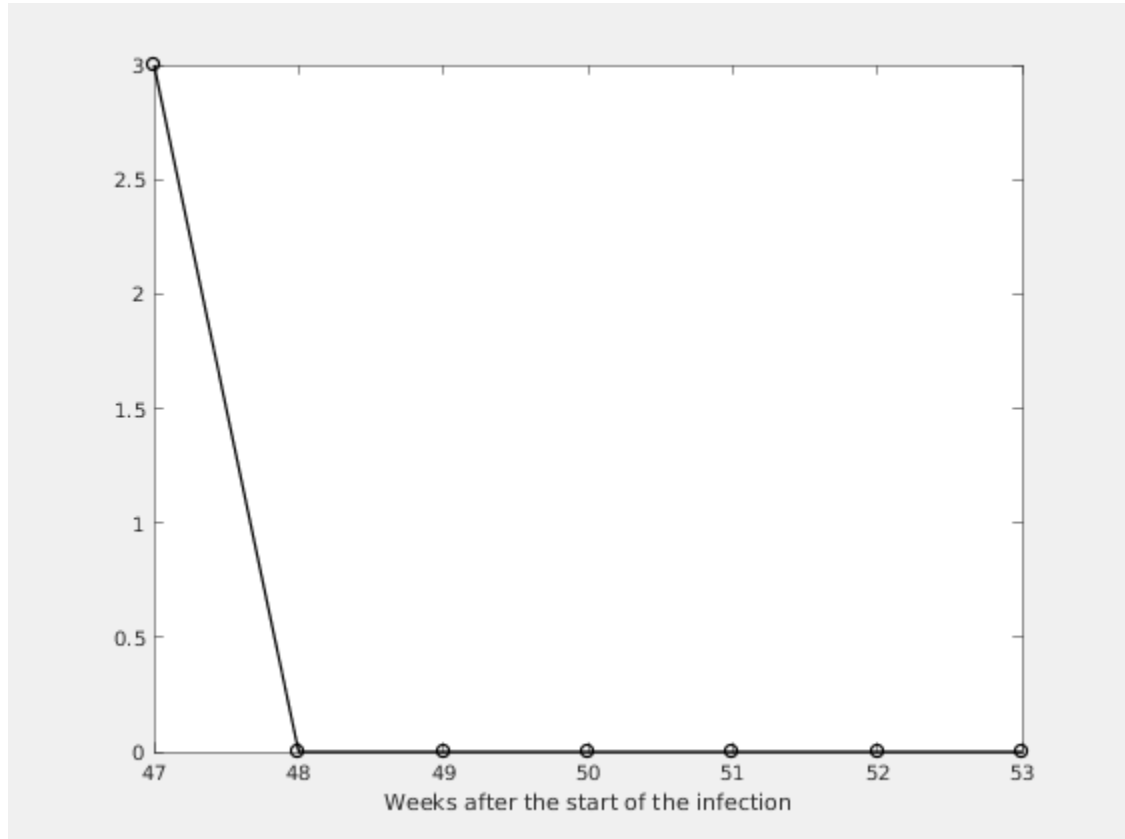
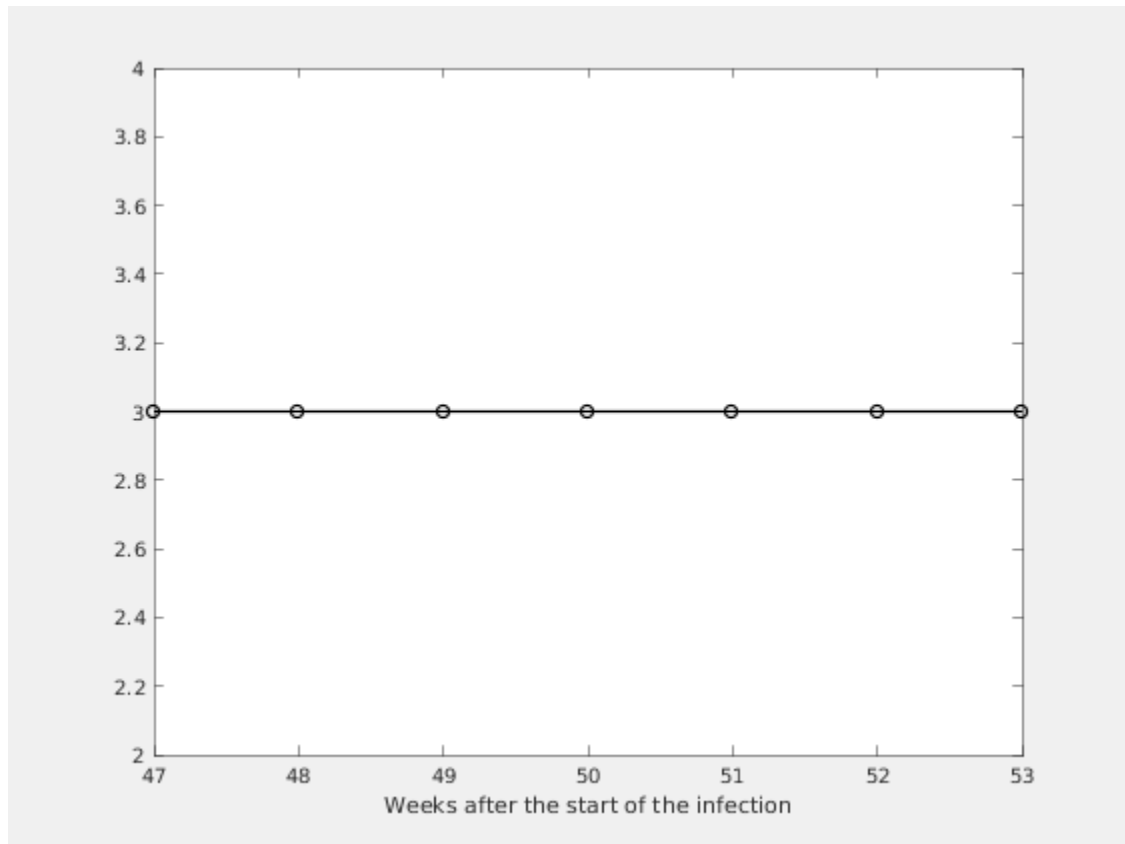
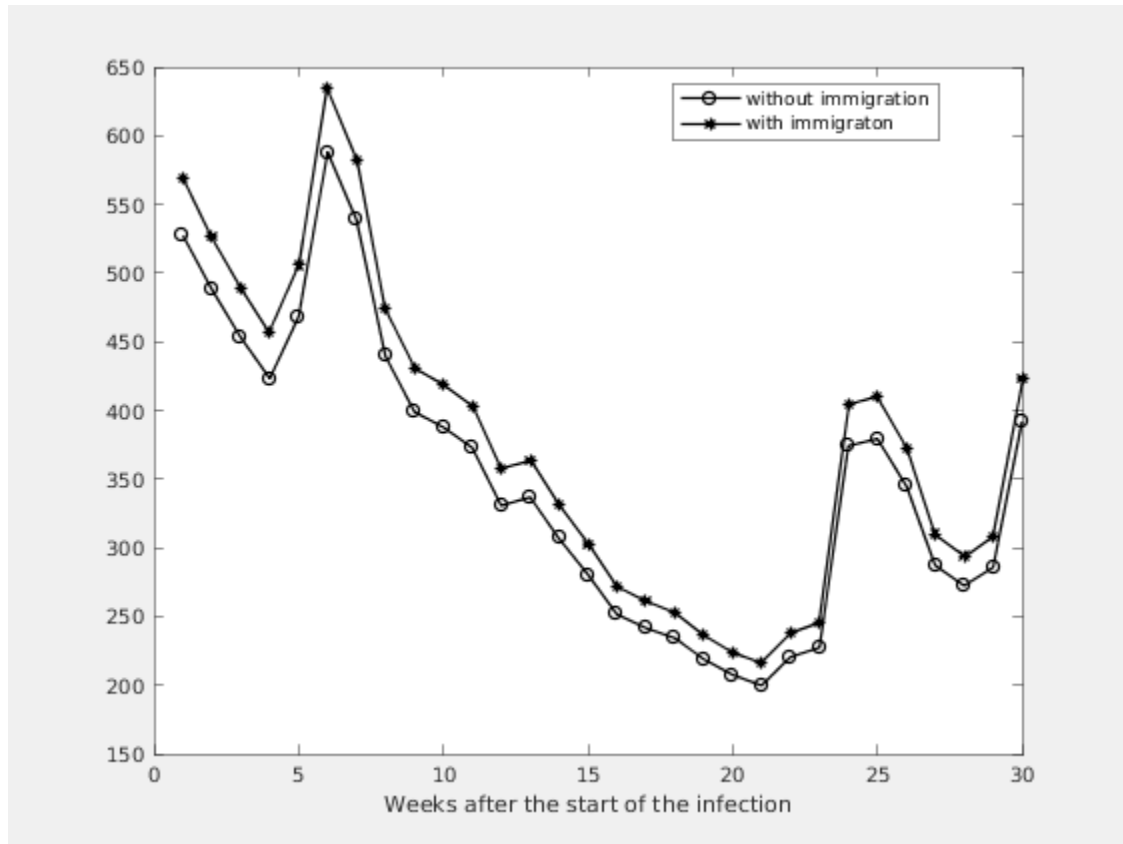


Figure 1.2. Number of the total registered cases



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	0.9809	0.7917 - 1.1701	0.6788	404	374
3	0.9750	0.7909 - 1.1590	0.6801	410	379
2	0.9740	0.7949 - 1.1531	0.6761	373	345
1	0.9765	0.8015 - 1.1515	0.6592	310	287
0	0.9876	0.8163 - 1.1590	0.6548	294	272