Branching stochastic processes as models of Covid-19 epidemic development

Var120 - week 53

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Abstract

The results presented here are obtained using the methologi proposed in the paper https://arxiv.org/abs/2004.14838 for the country Var120. 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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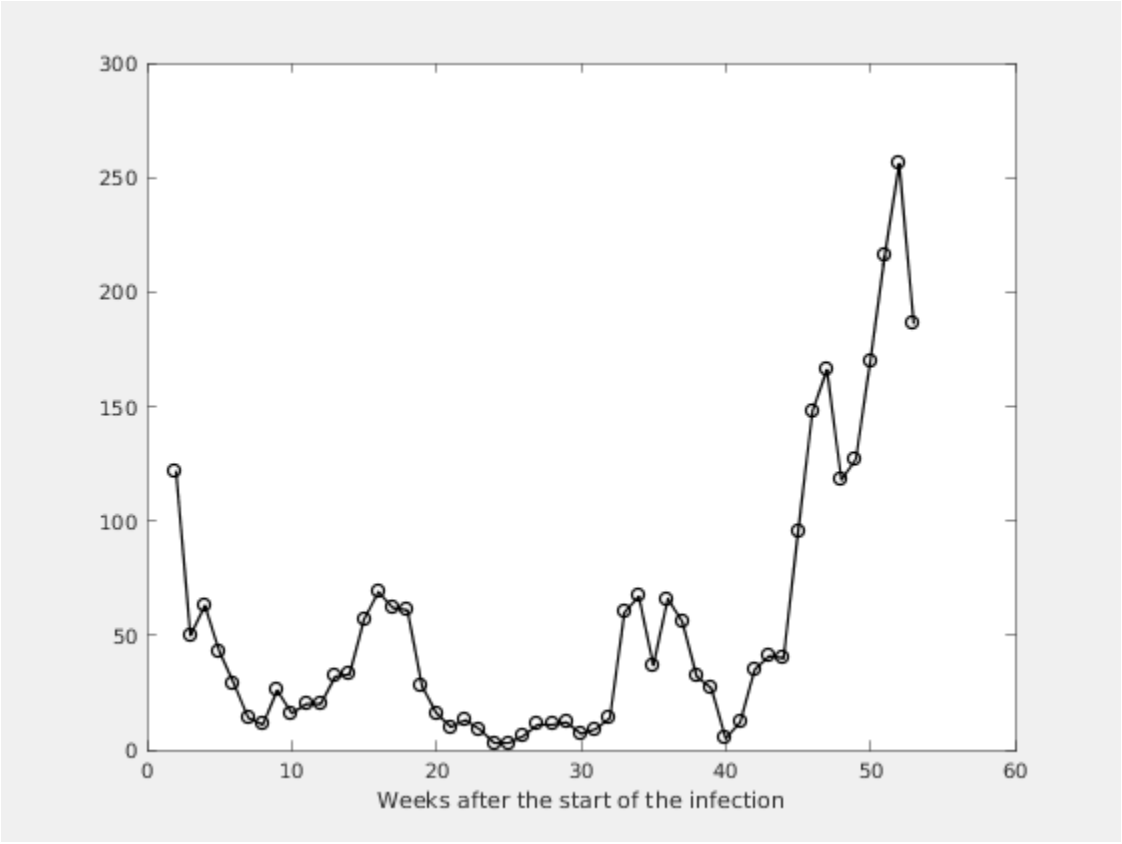
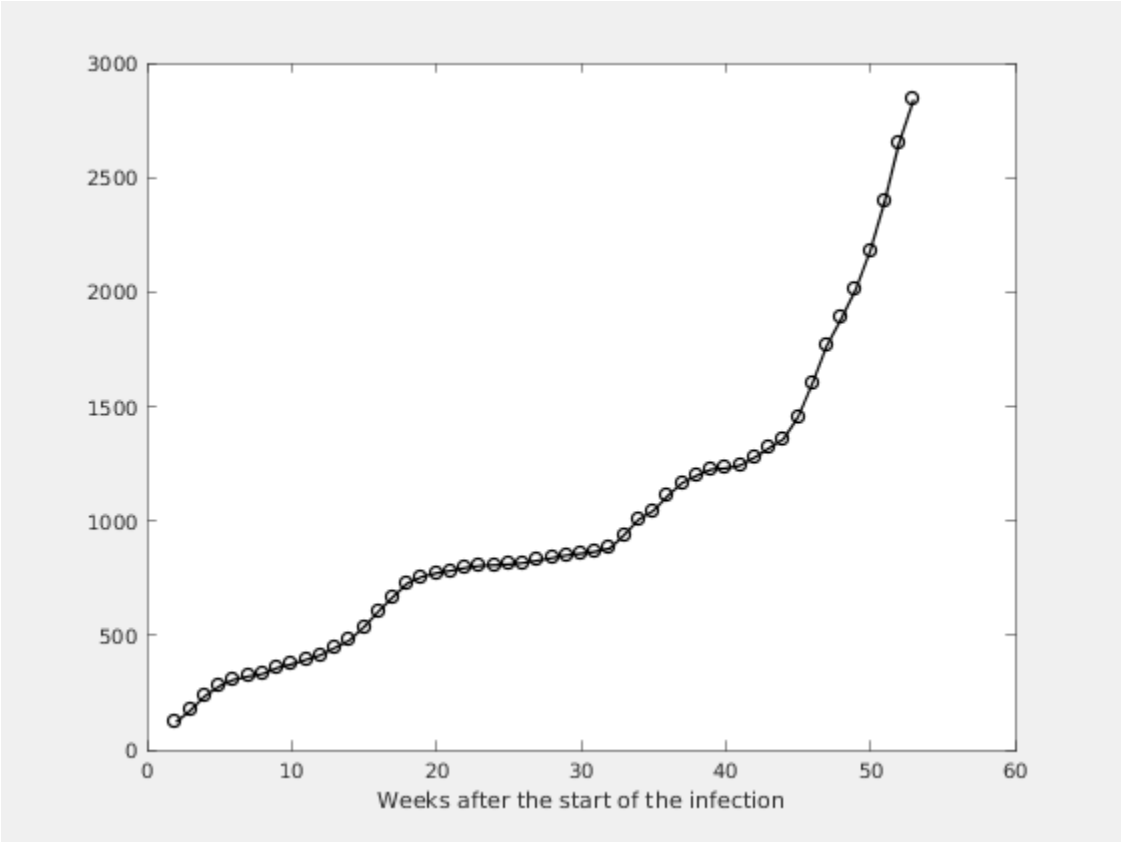


Figure 1.2. Number of the total registered cases



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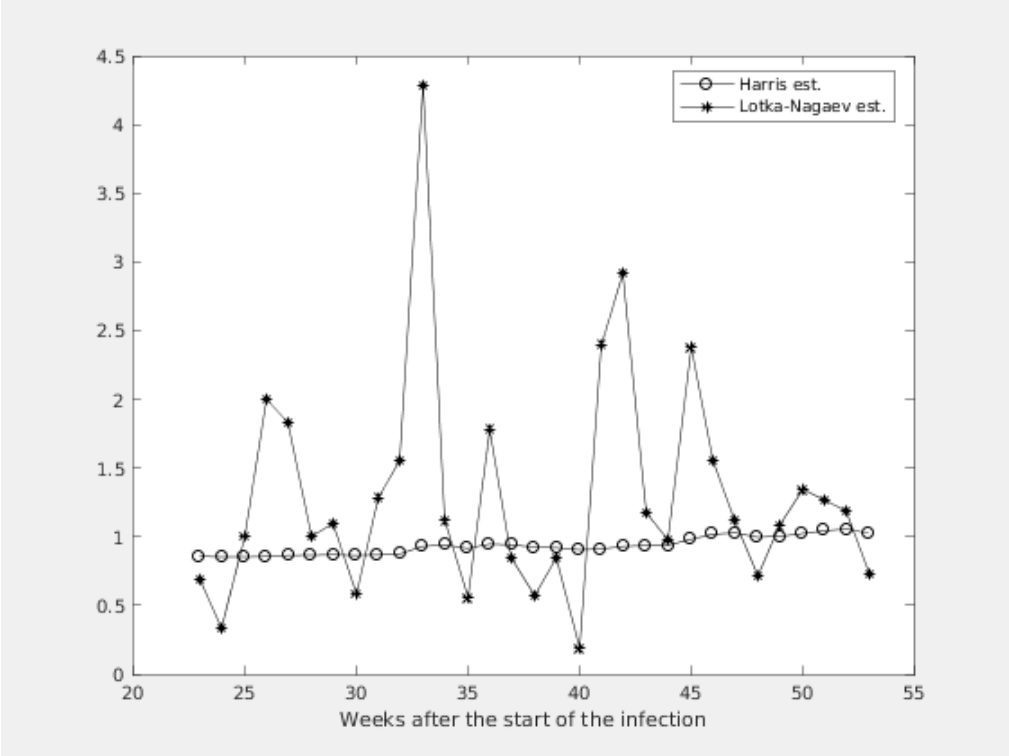


Figure 2.2. Figure

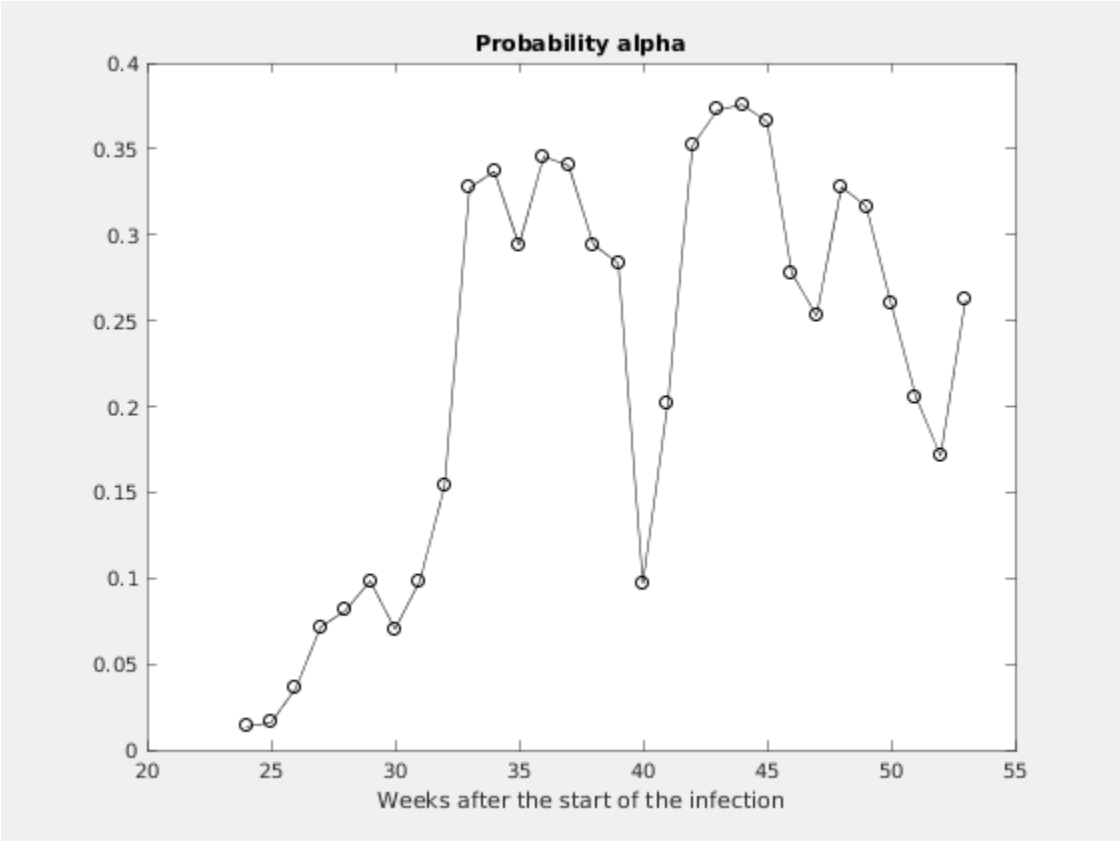


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

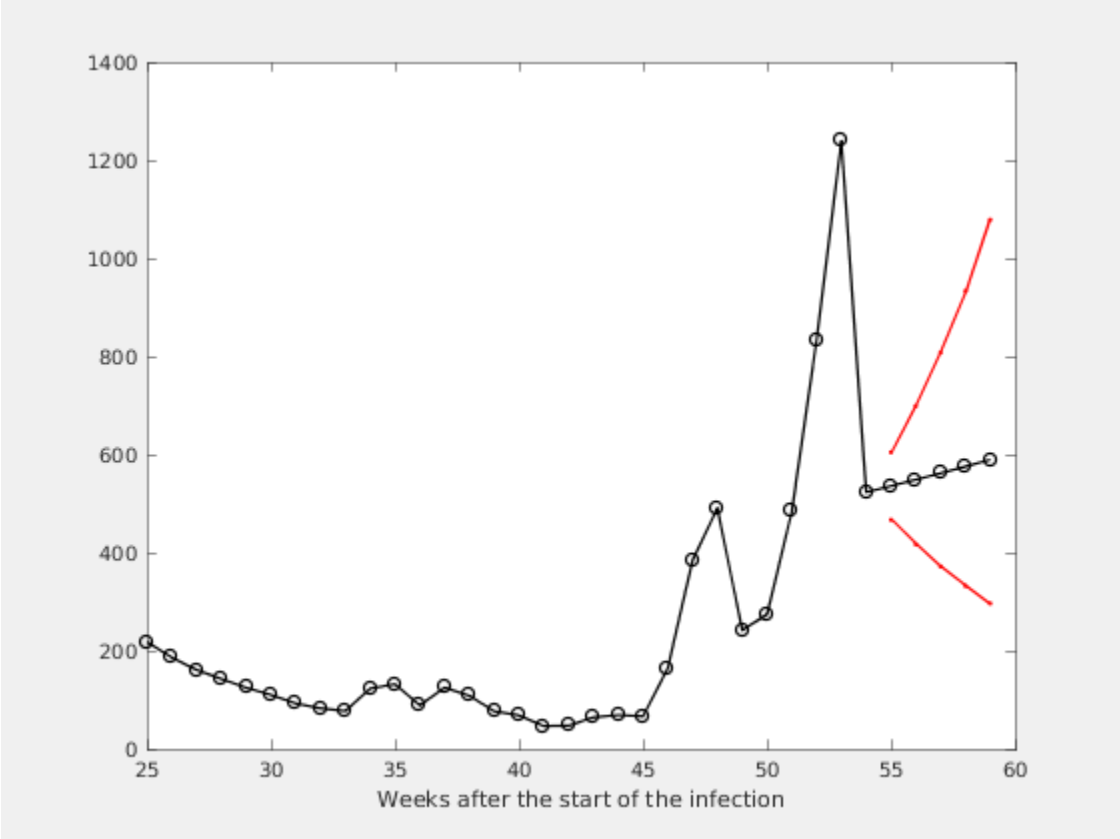
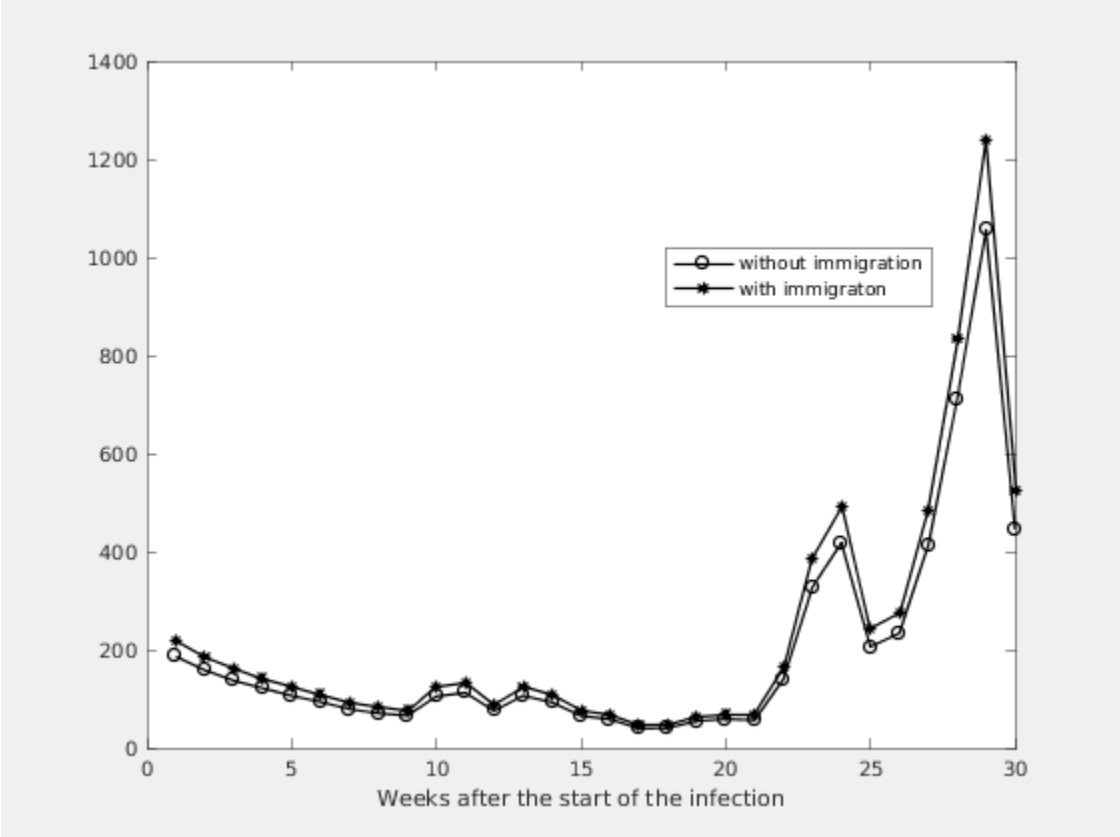


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	1.0027	0.8325 - 1.1728	0.2528	491	418
3	1.0239	0.8614 - 1.1863	0.3279	242	206
2	1.0431	0.8871 - 1.1991	0.3165	274	234
1	1.0559	0.9048 - 1.2069	0.2600	484	412
0	1.0241	0.8795 - 1.1687	0.2057	834	711