Branching stochastic processes as models of Covid-19 epidemic development

Var40 - 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 Var40. 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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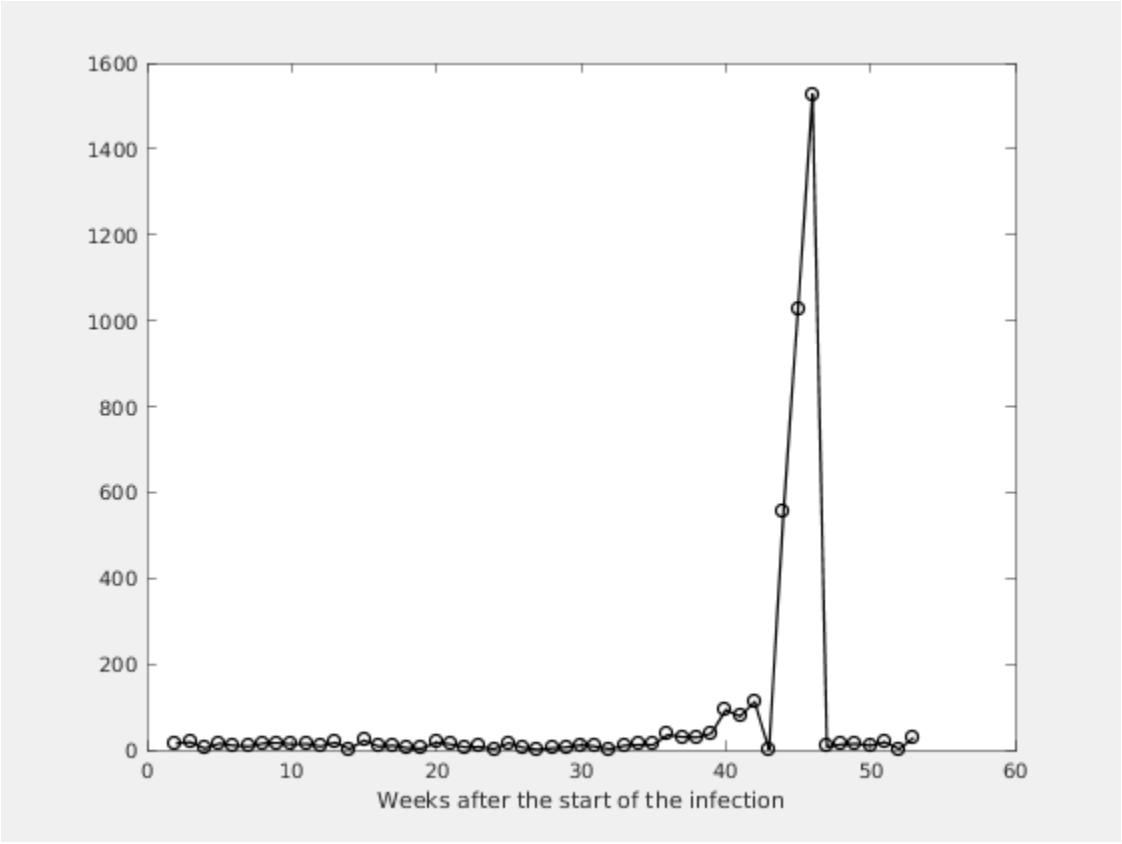
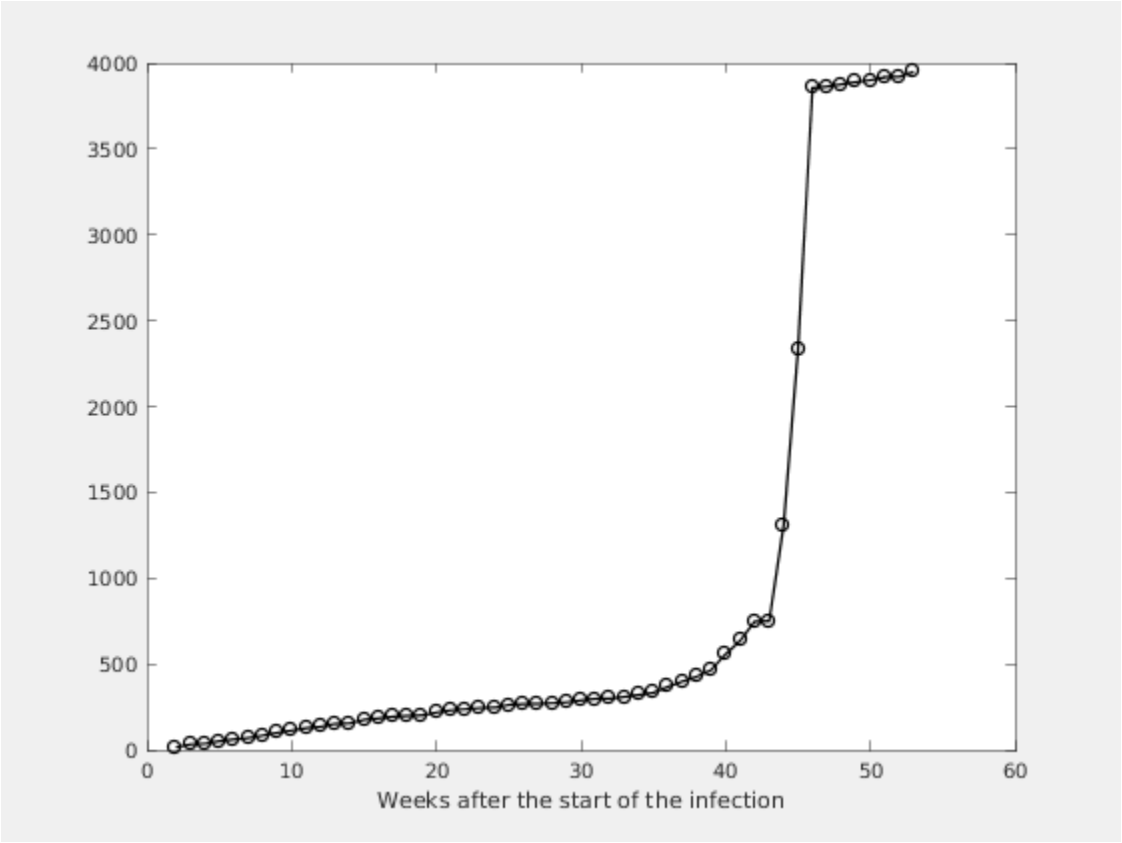


Figure 1.2. Number of the total registered cases



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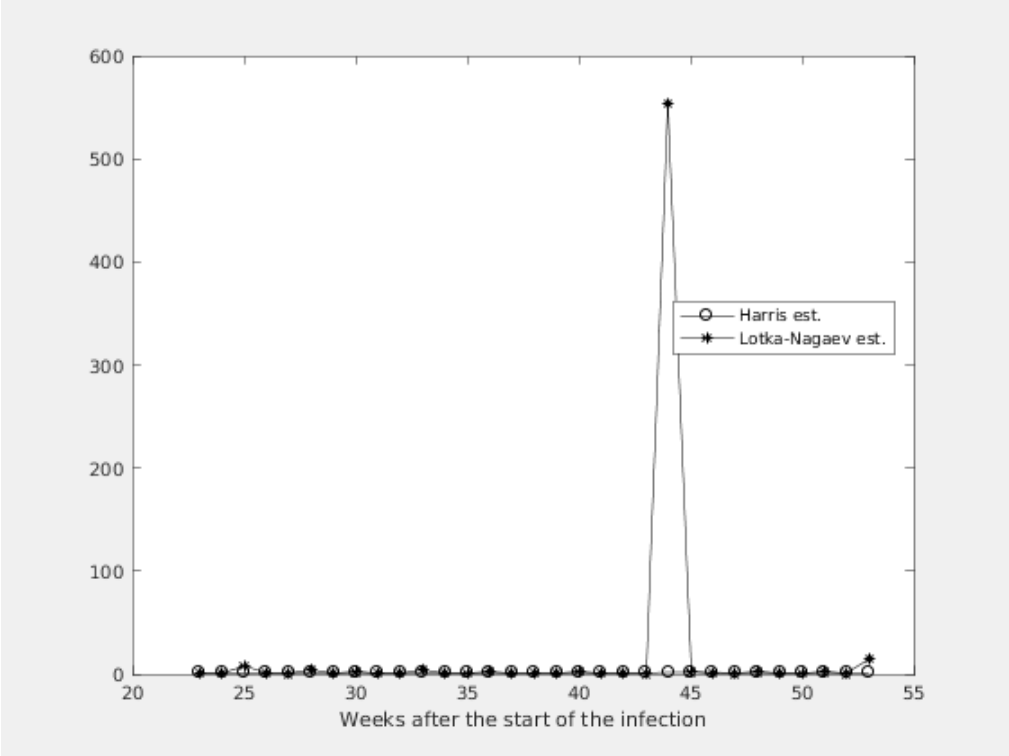


Figure 2.2. Figure

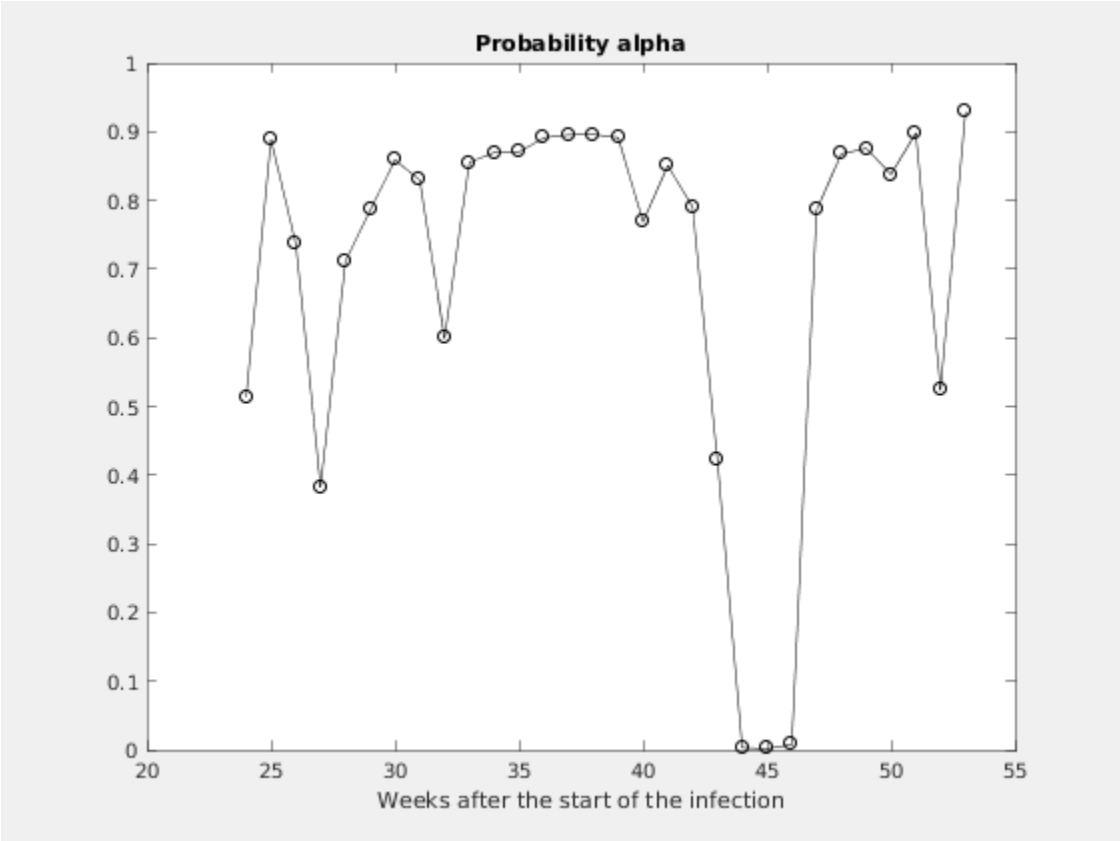


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

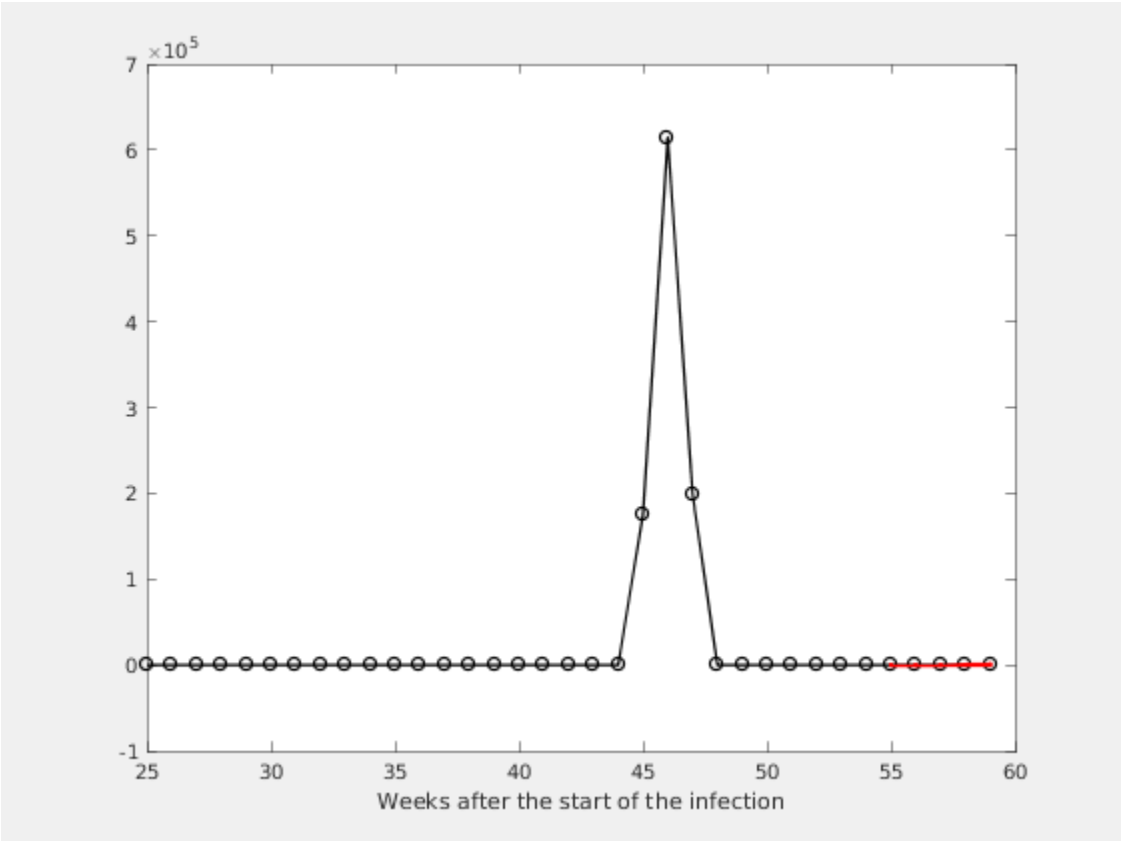
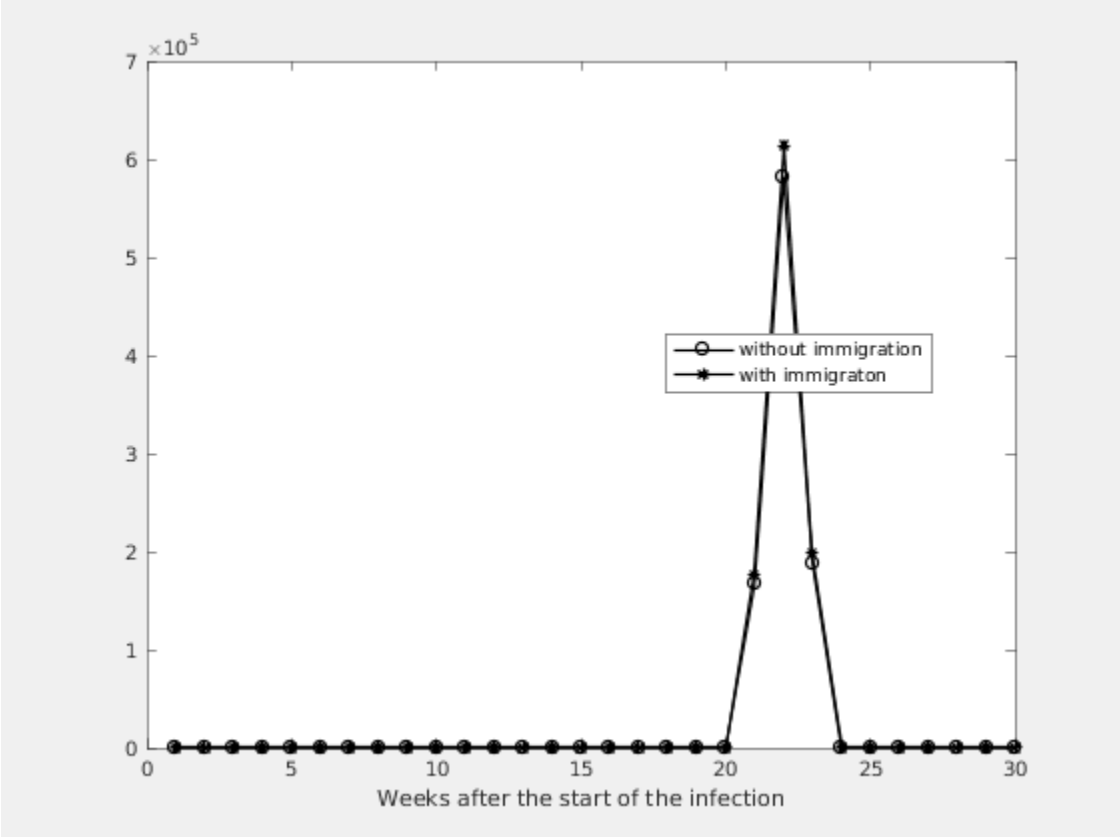


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	0.9997	-1.6148 - 3.6142	0.7863	2	2
3	0.9987	-1.5849 - 3.5823	0.8682	2	2
2	1.0008	-1.5509 - 3.5524	0.8757	2	2
1	0.9967	-1.5237 - 3.5171	0.8381	2	2
0	1.0036	-1.4878 - 3.4950	0.8980	2	2