Branching stochastic processes as models of Covid-19 epidemic development

Var206 - 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 Var206. 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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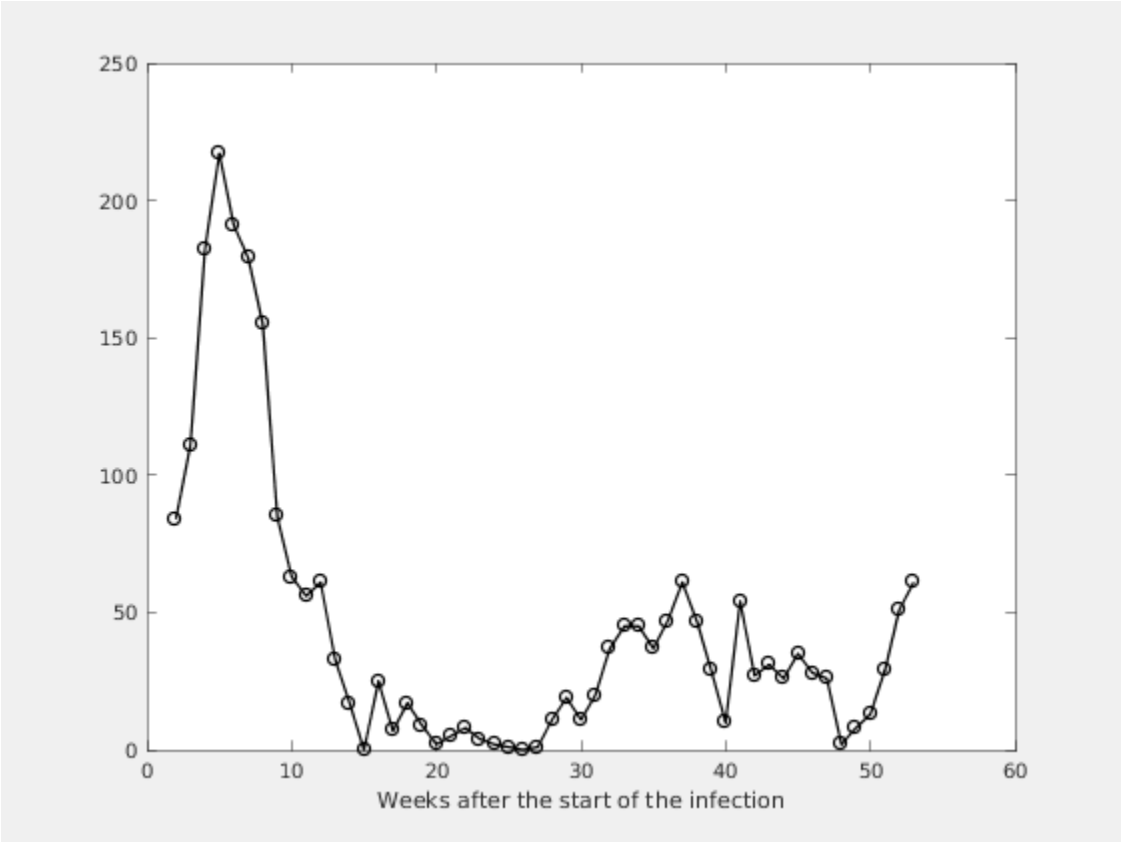
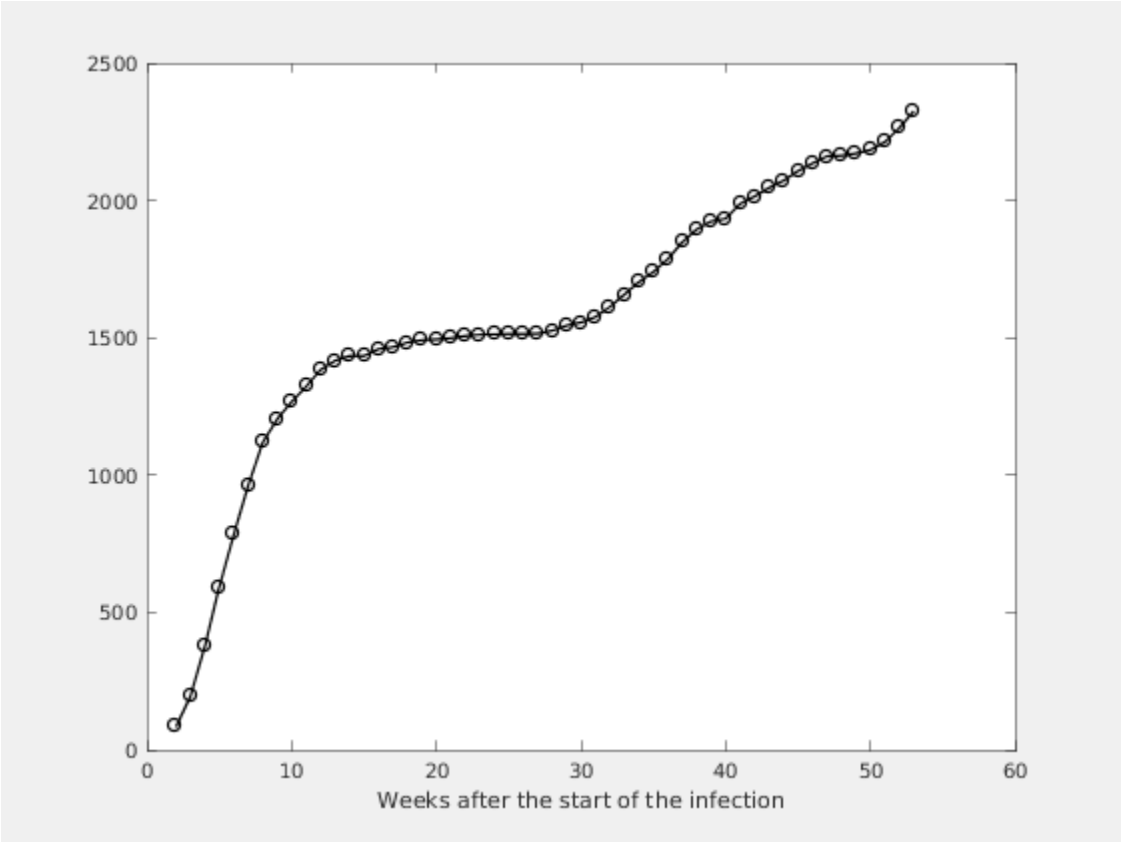


Figure 1.2. Number of the total registered cases



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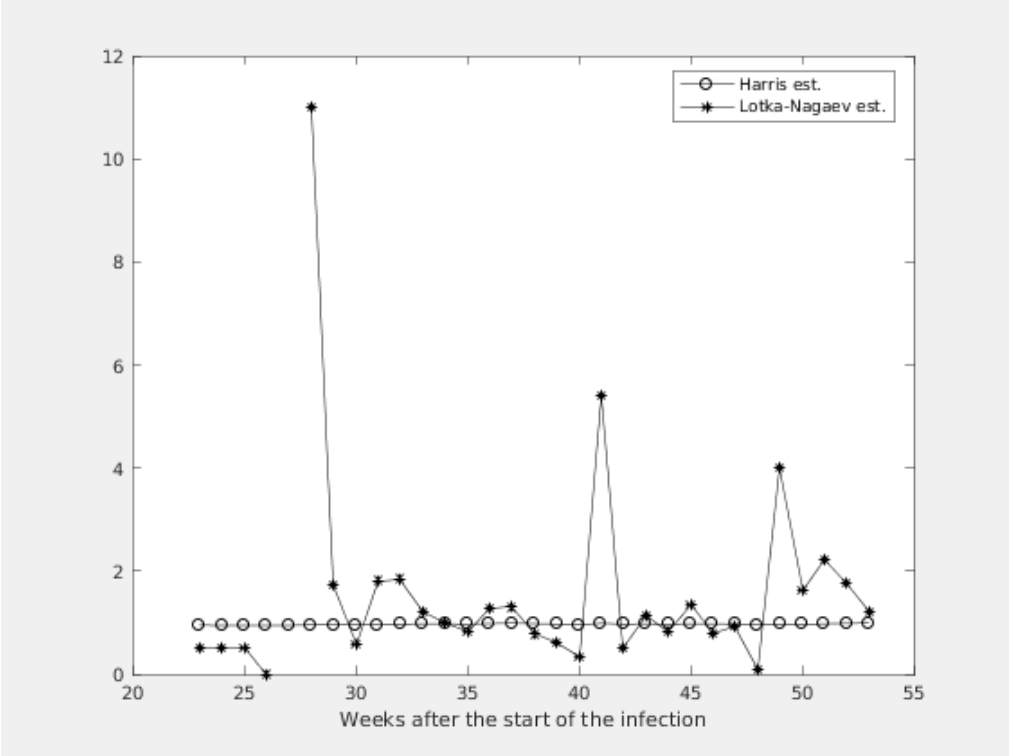


Figure 2.2. Figure

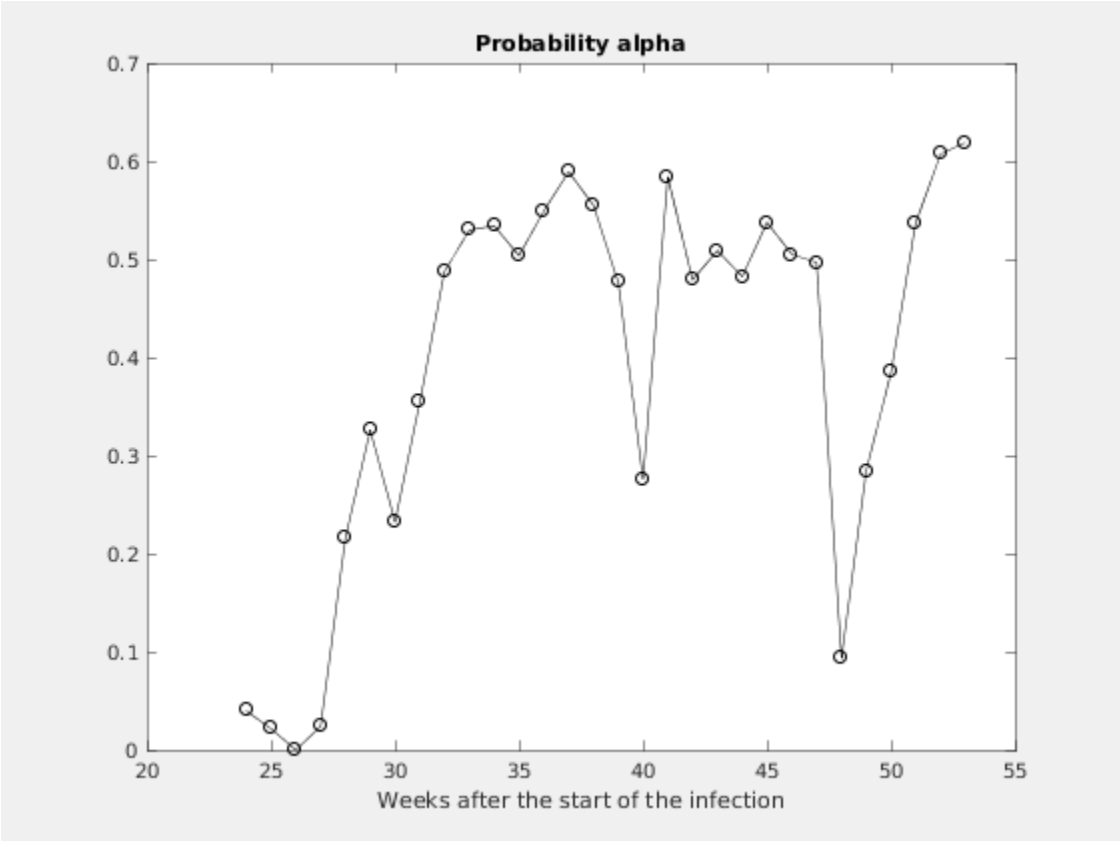


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

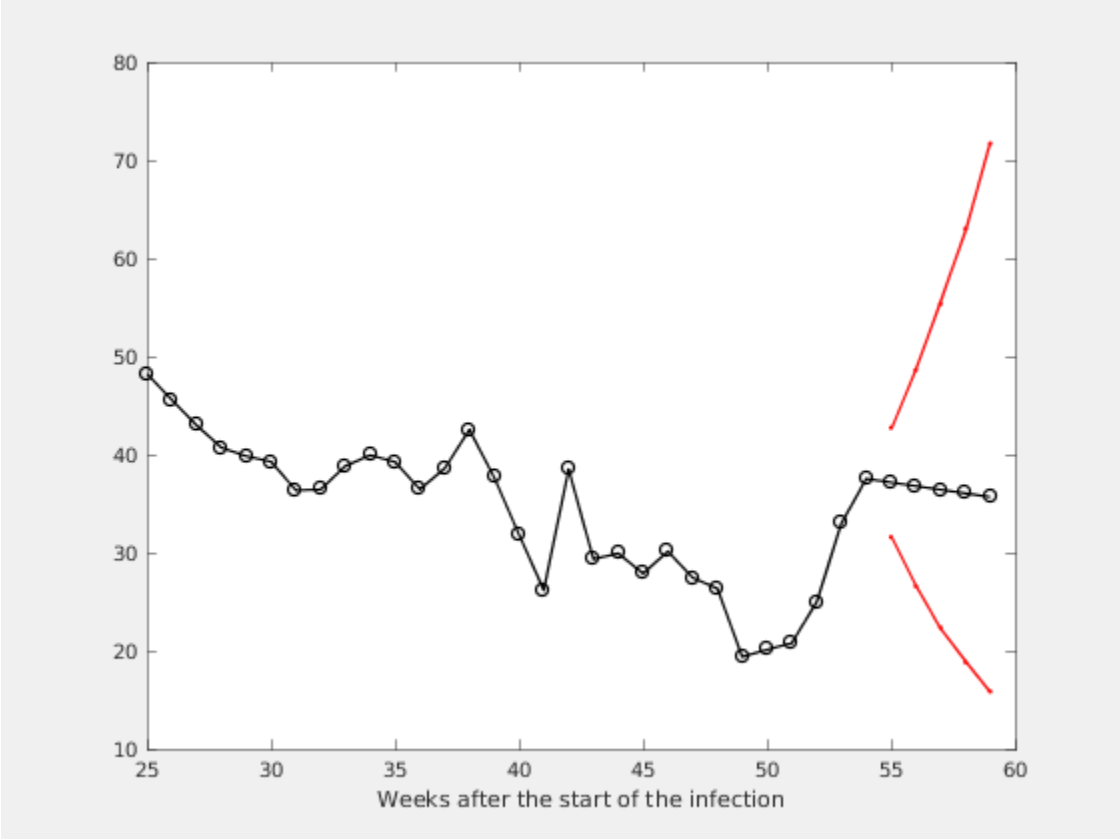
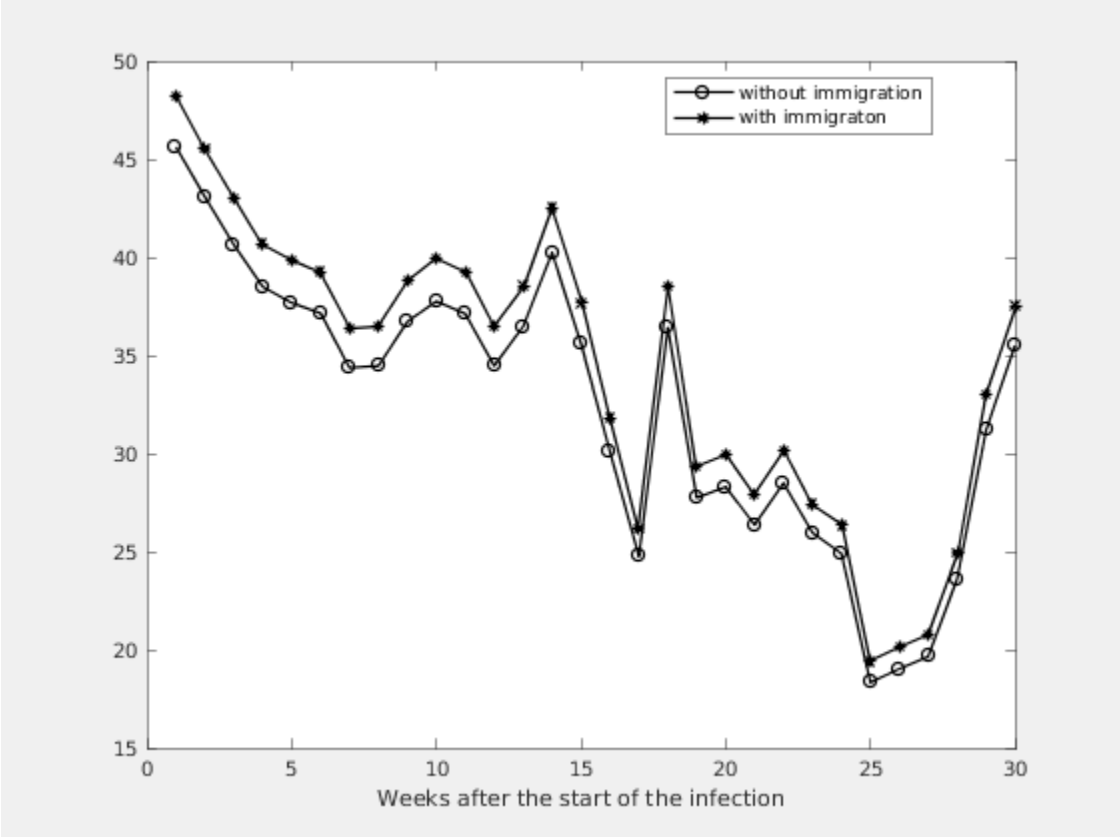


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	0.9649	0.8128 - 1.1169	0.4968	26	25
3	0.9673	0.8152 - 1.1194	0.0935	19	18
2	0.9748	0.8220 - 1.1276	0.2845	20	19
1	0.9851	0.8337 - 1.1364	0.3848	21	20
0	0.9898	0.8380 - 1.1417	0.5373	25	24