Branching stochastic processes as models of Covid-19 epidemic development

Var52 - 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 Var52. 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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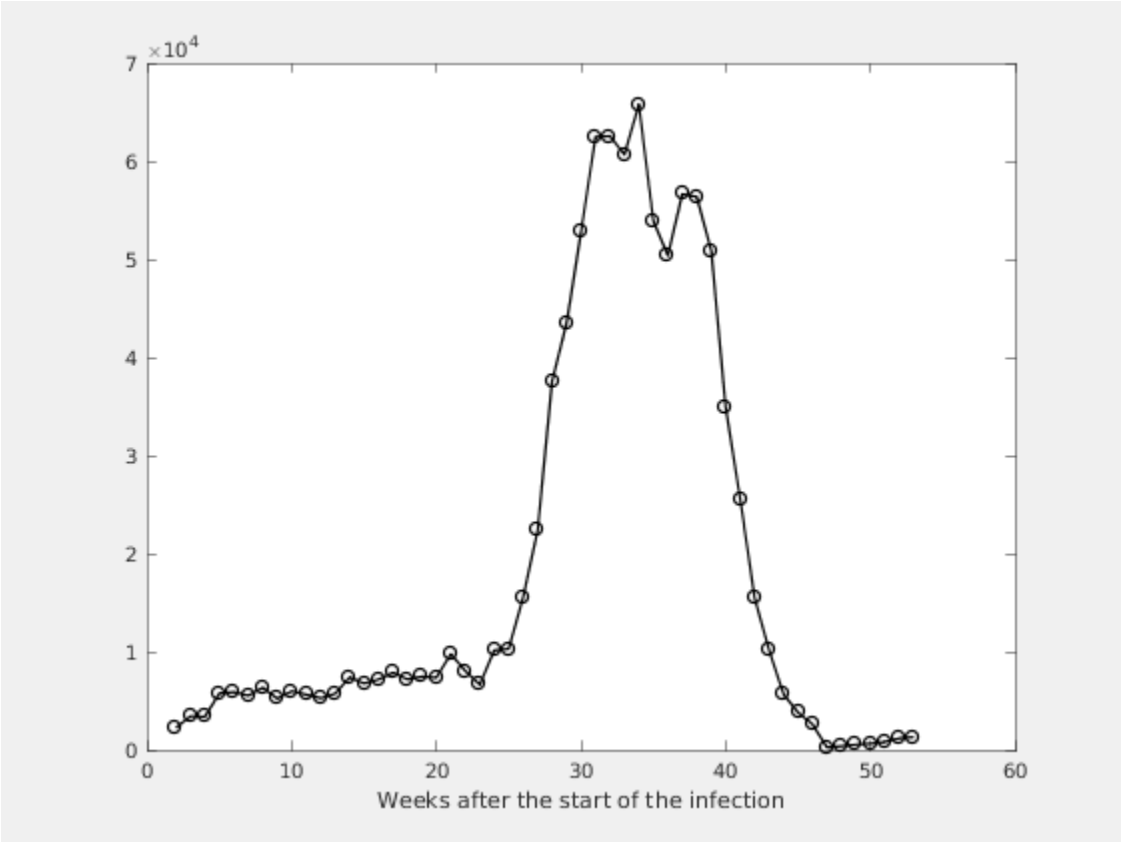
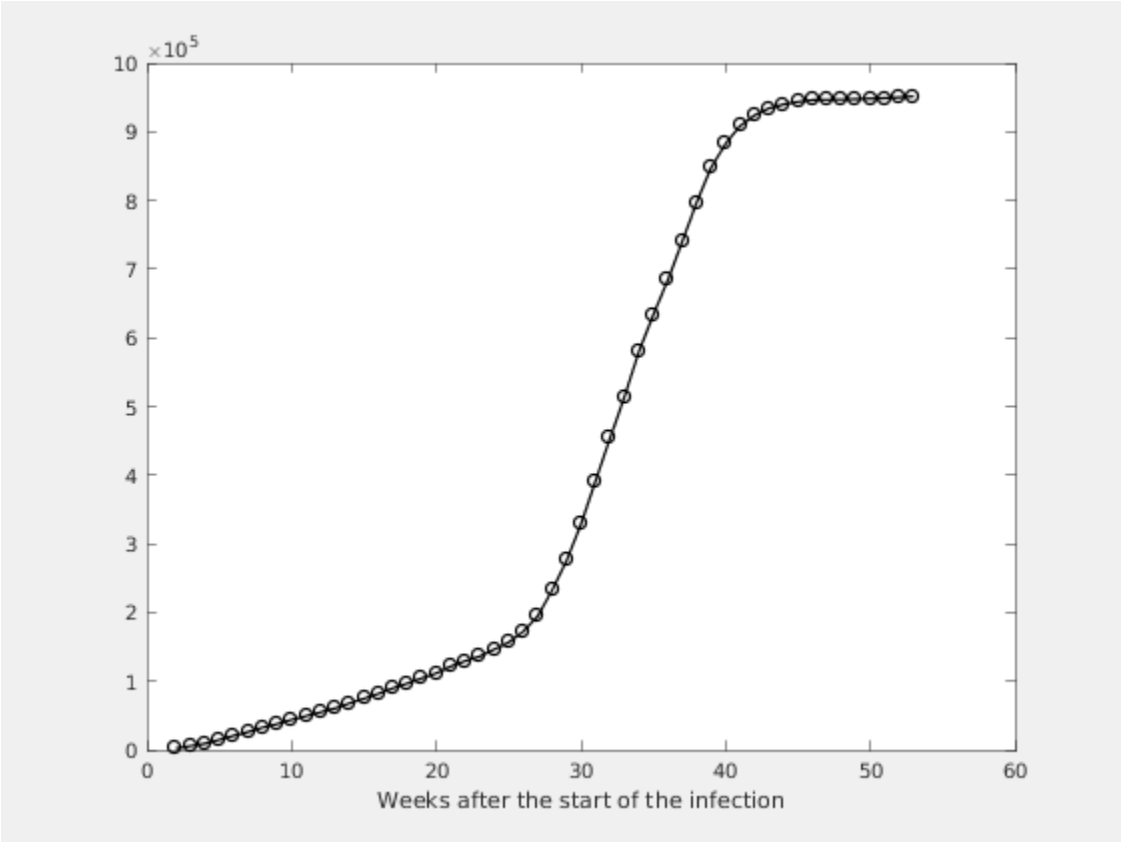


Figure 1.2. Number of the total registered cases



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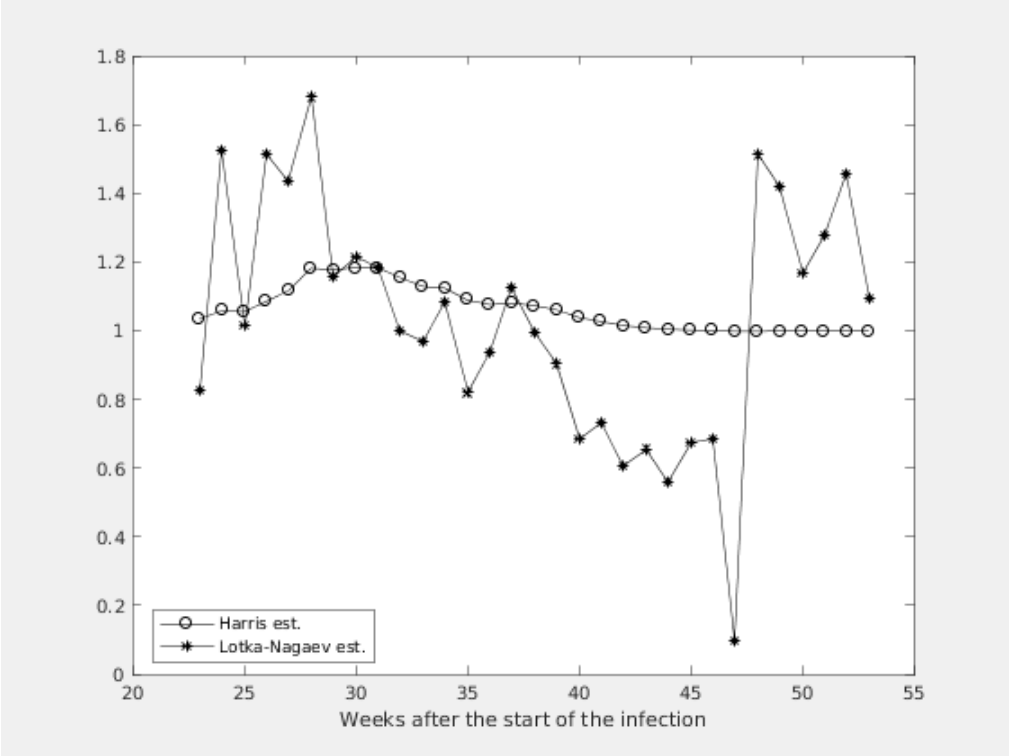


Figure 2.2. Figure

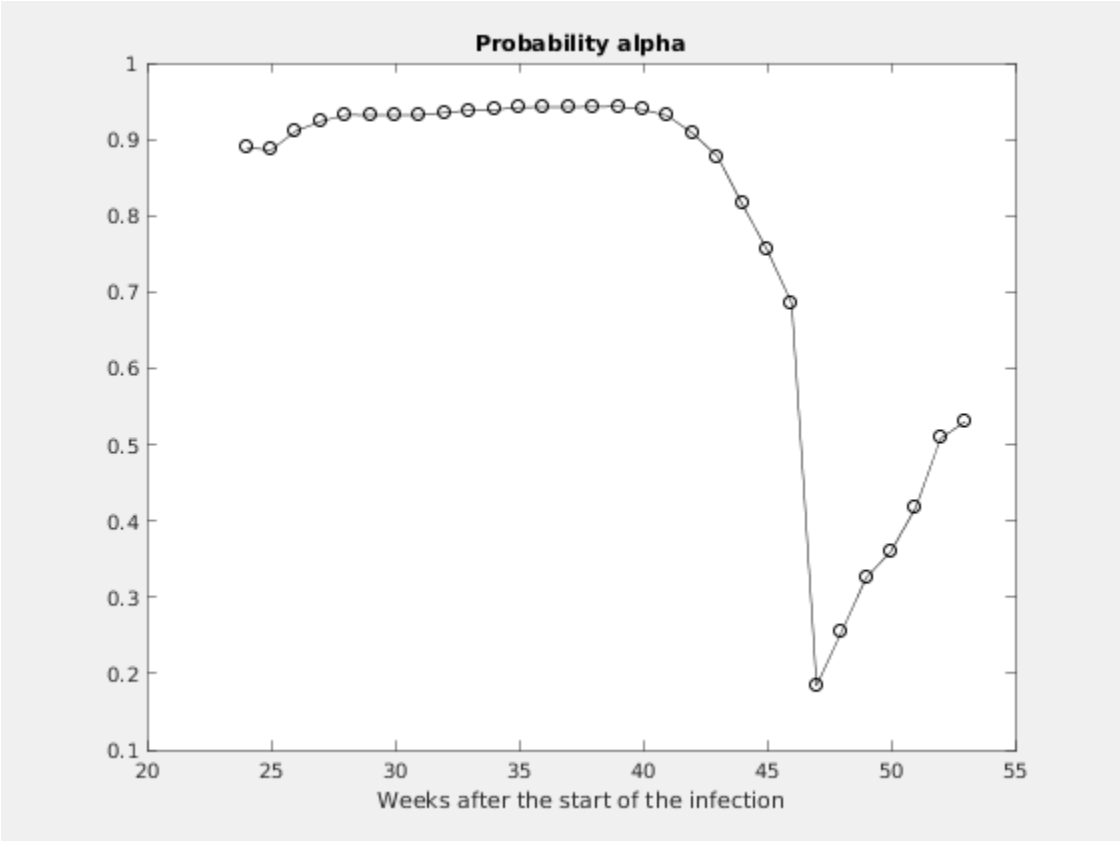


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

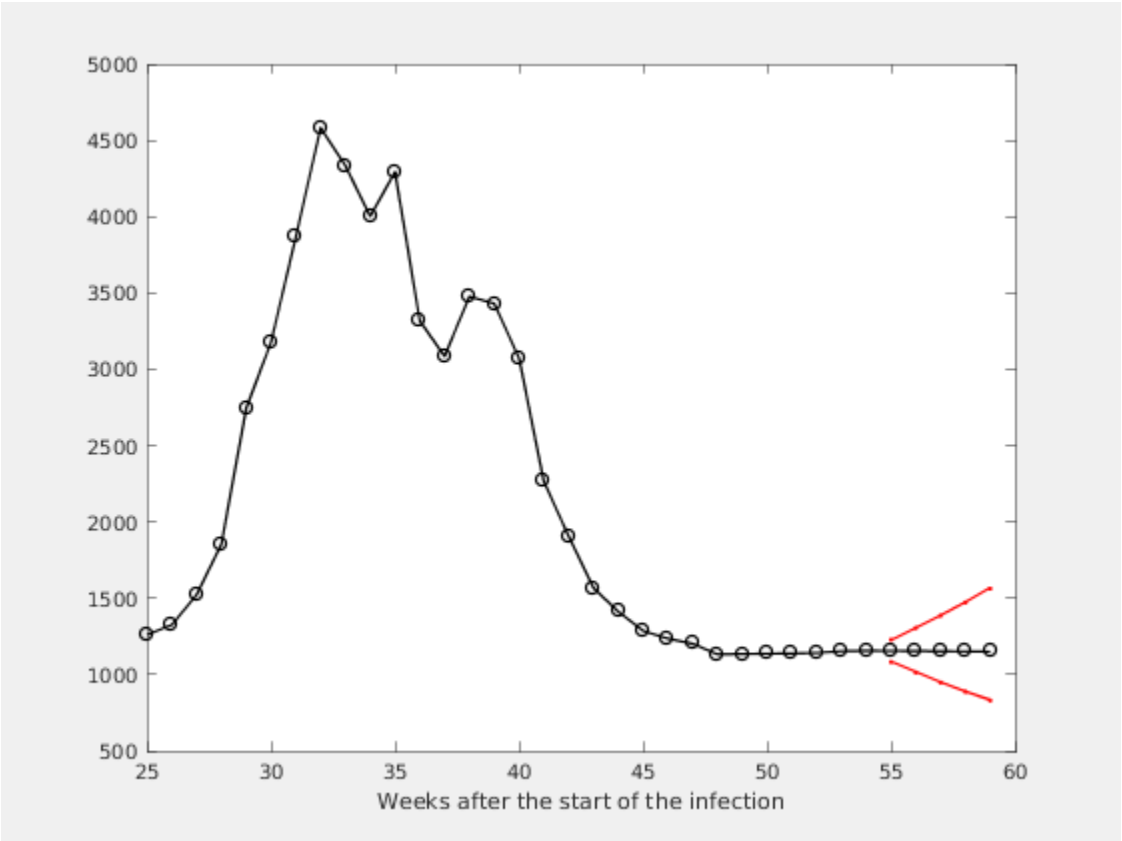
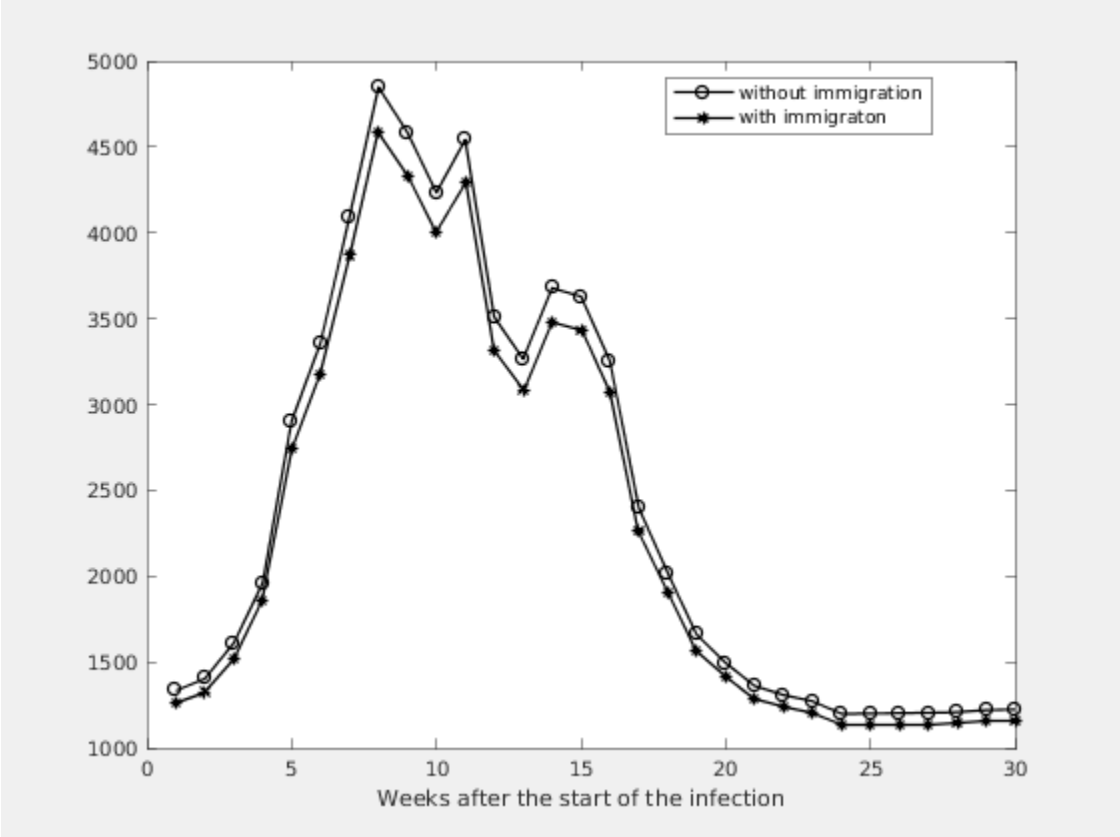


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	0.9982	0.9310 - 1.0653	0.1843	1133	1198
3	0.9983	0.9318 - 1.0647	0.2544	1134	1200
2	0.9985	0.9327 - 1.0642	0.3256	1137	1203
1	0.9989	0.9338 - 1.0639	0.3603	1138	1204
0	0.9990	0.9346 - 1.0634	0.4176	1142	1208