Branching stochastic processes as models of Covid-19 epidemic development

Cameroon - 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 Cameroon. 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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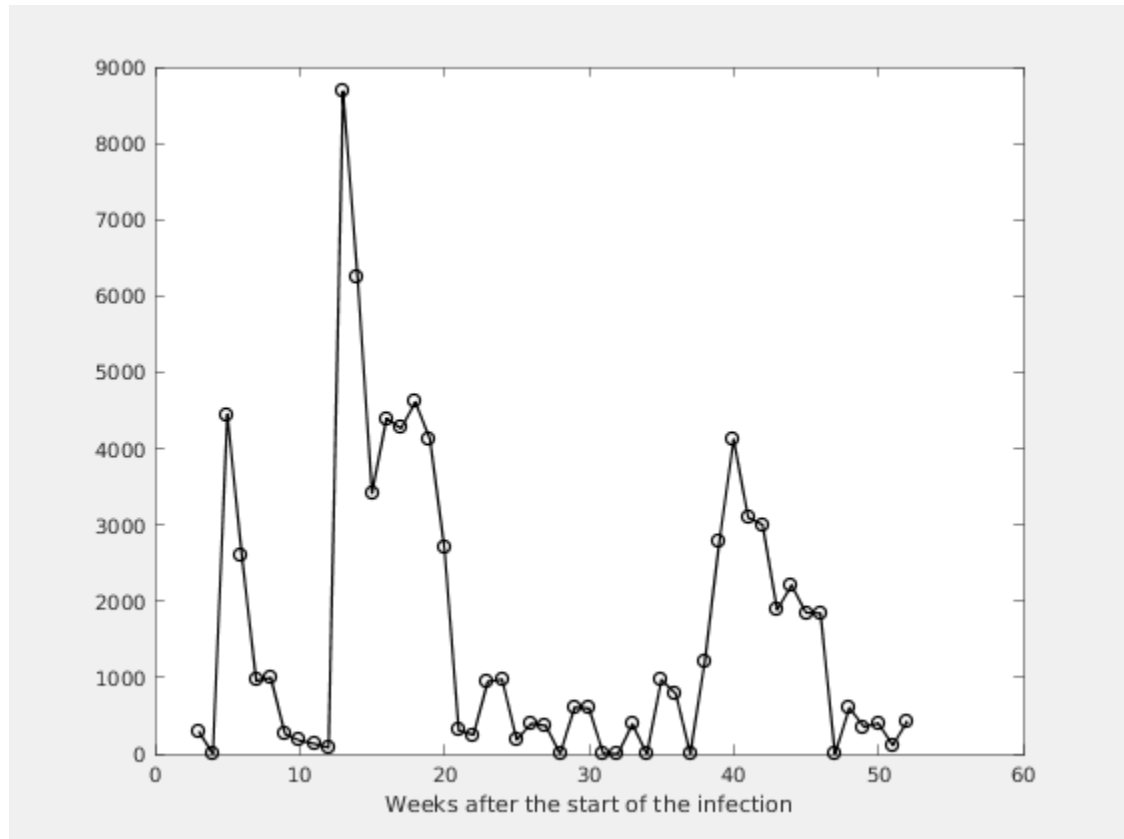**Figure 1.1. Number of the weekly reported laboratory-confirmed cases**
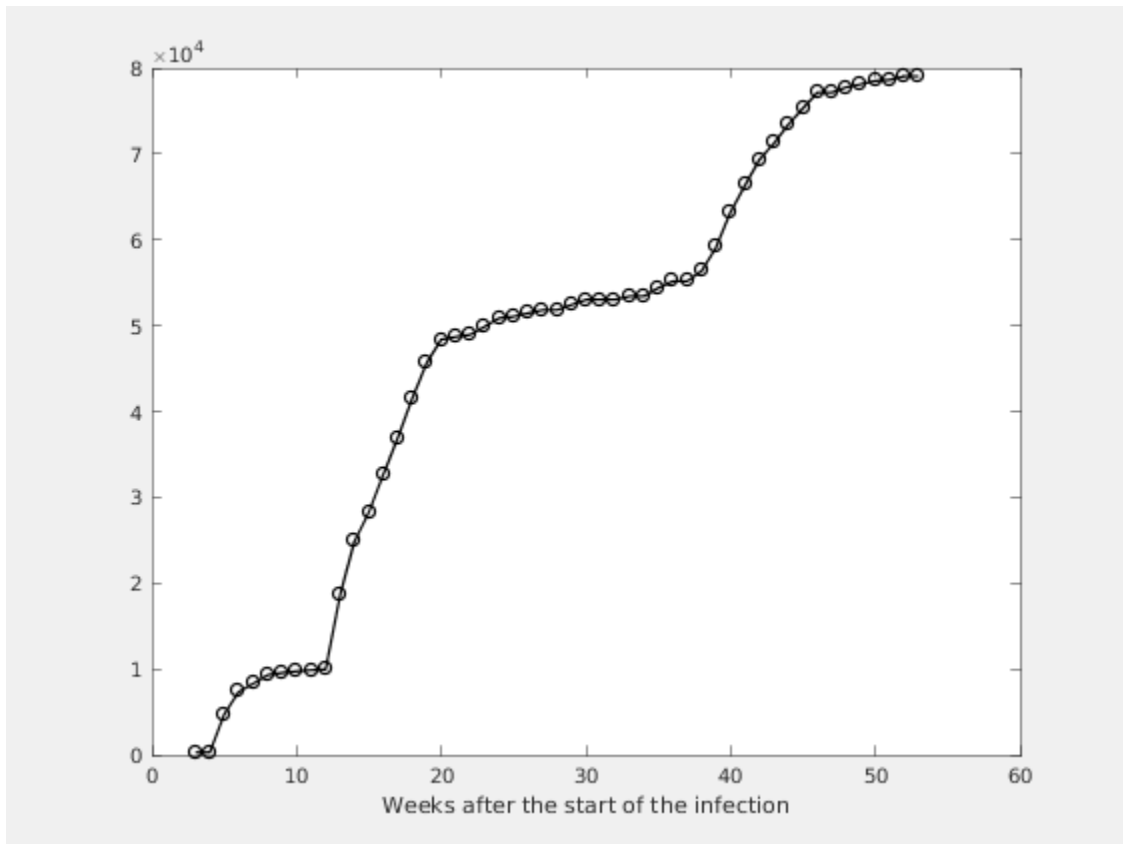
Figure 1.2. Number of the total registered cases

Chapter 2. Estimating of the main parameter and some predictions

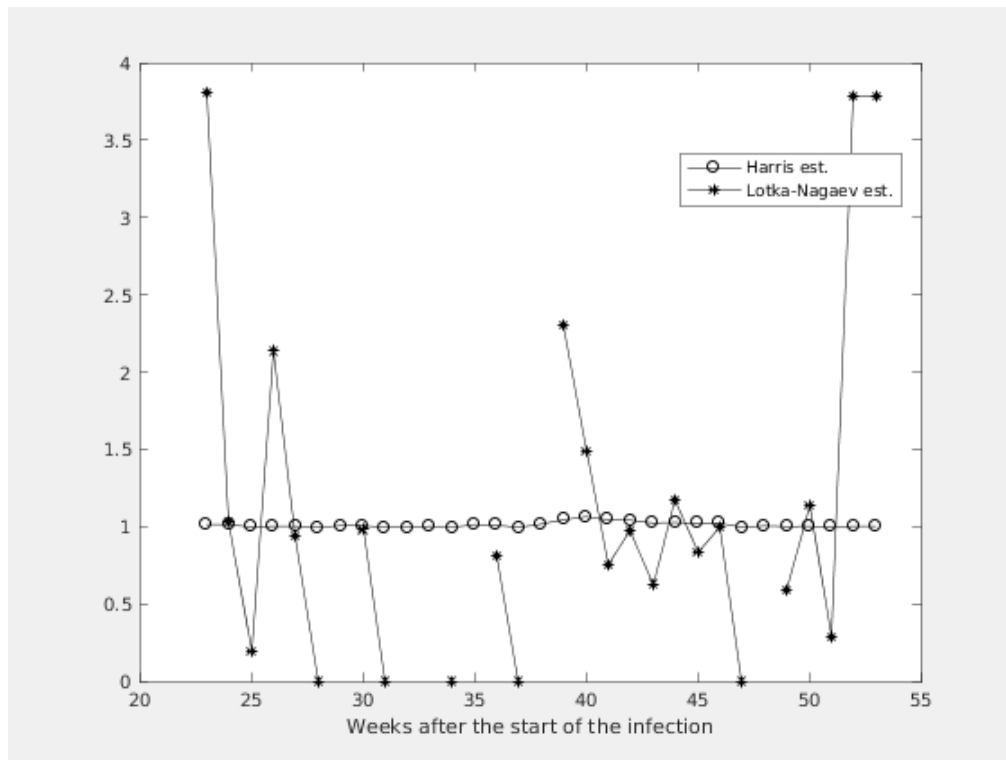**Figure 2.1. The Lotka-Nagaev and the Harris type estimator of the growth rate**
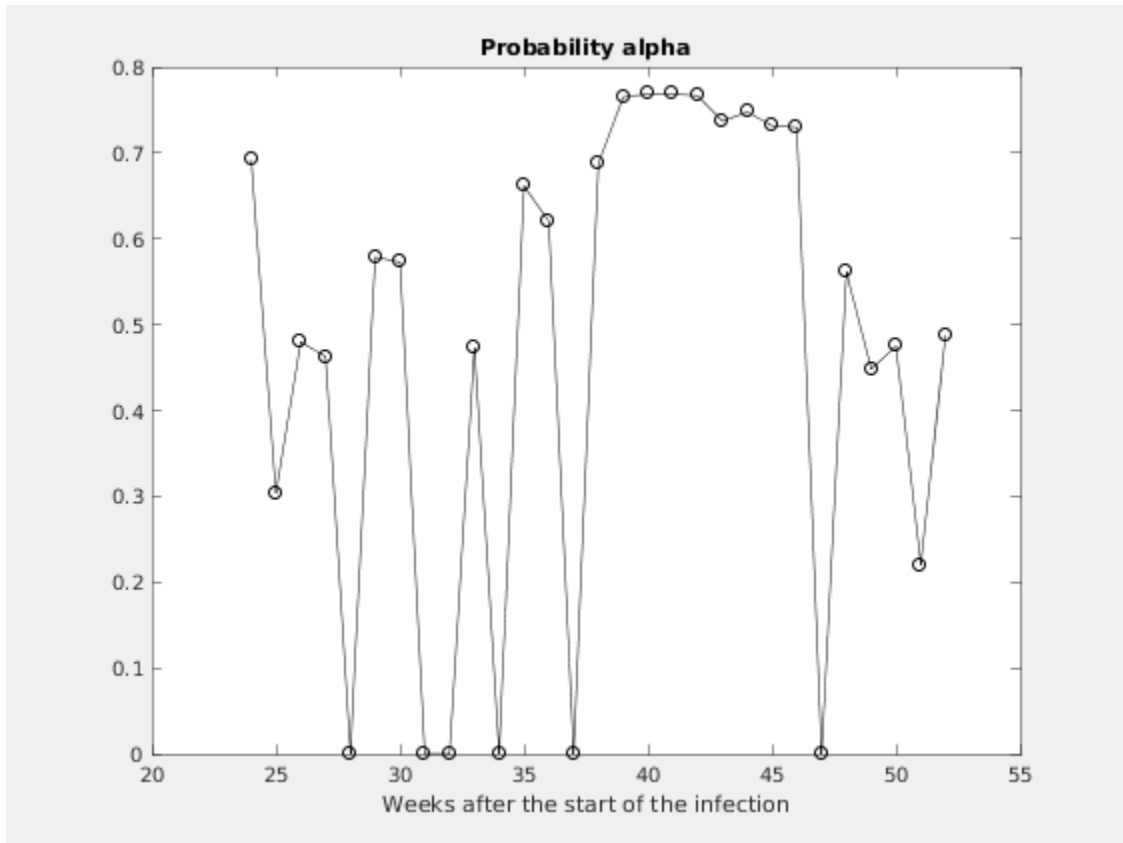
Figure 2.2. Figure

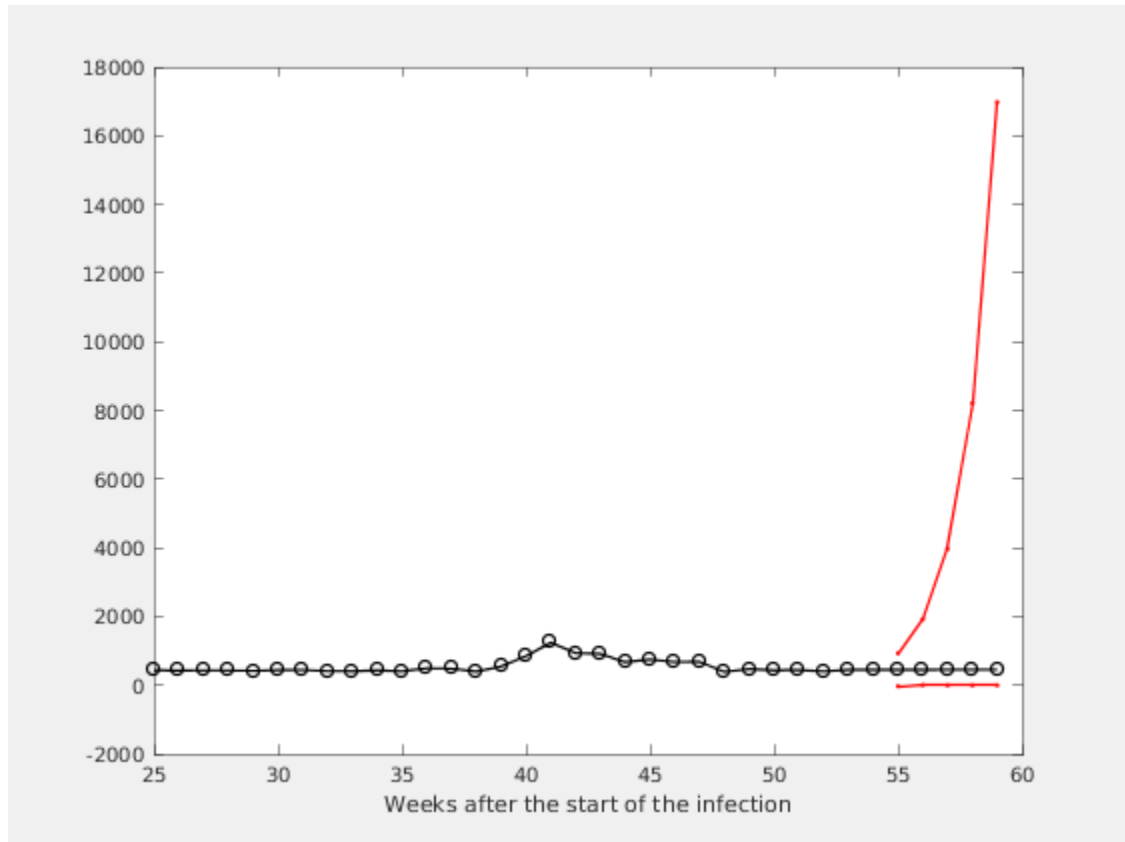**Figure 2.3. Expected number of the nonregistered infected individuals without immigration**
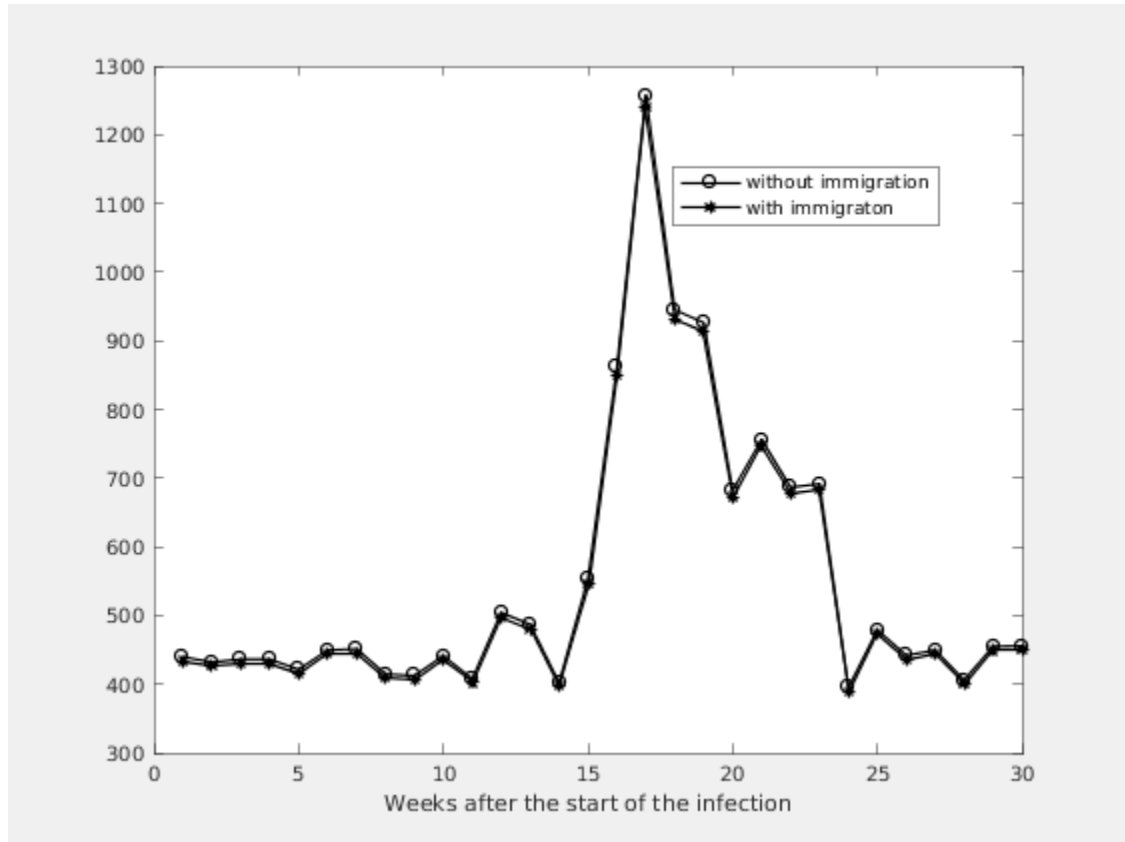
Figure 2.4. Expected number of the nonregistered infected individuals with immigration

Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	1.0007	-0.1443 - 2.1457	0.0000	390	395
3	1.0013	-0.1290 - 2.1316	0.5611	472	479
2	0.9976	-0.1138 - 2.1091	0.4481	436	442
1	1.0016	-0.0934 - 2.0966	0.4749	443	449
0	1.0016	-0.0773 - 2.0805	0.2201	401	406