Branching stochastic processes as models of Covid-19 epidemic development

NewZealand - week 53

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Publication date 20-Mar-2022 03:17:36

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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 NewZealand. 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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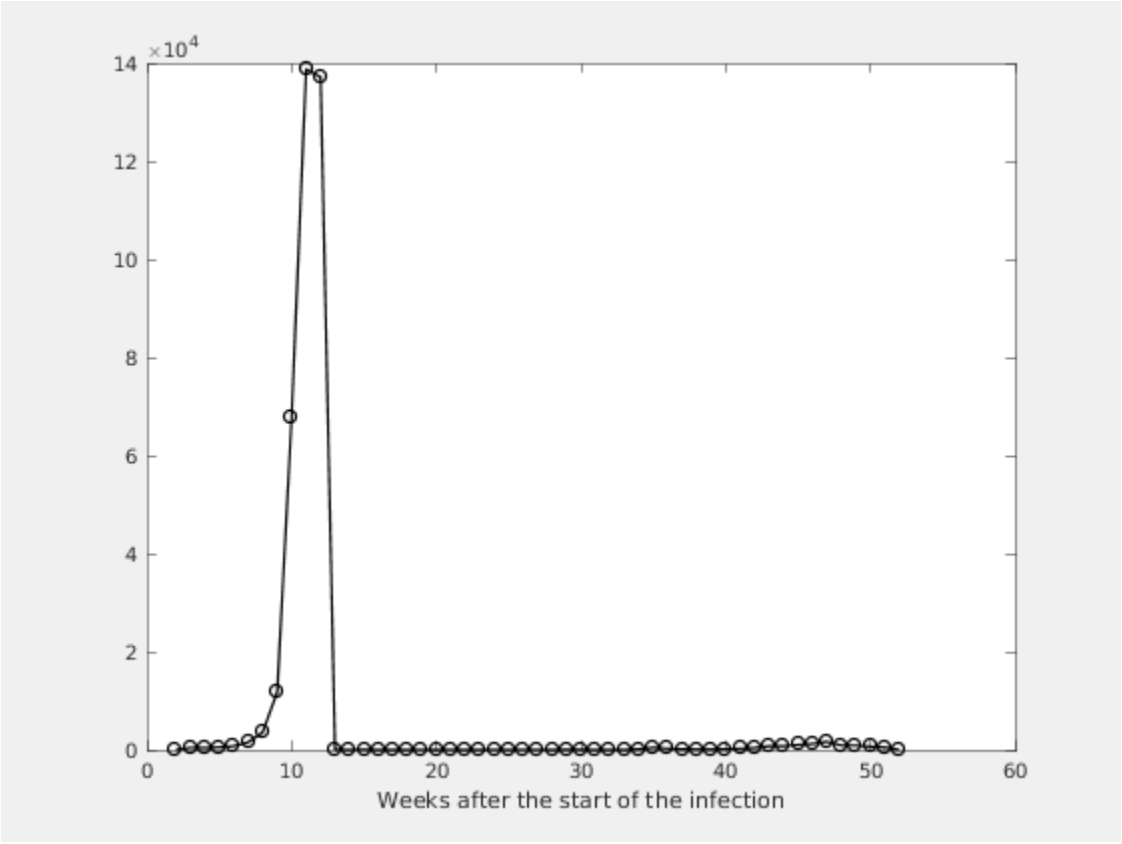
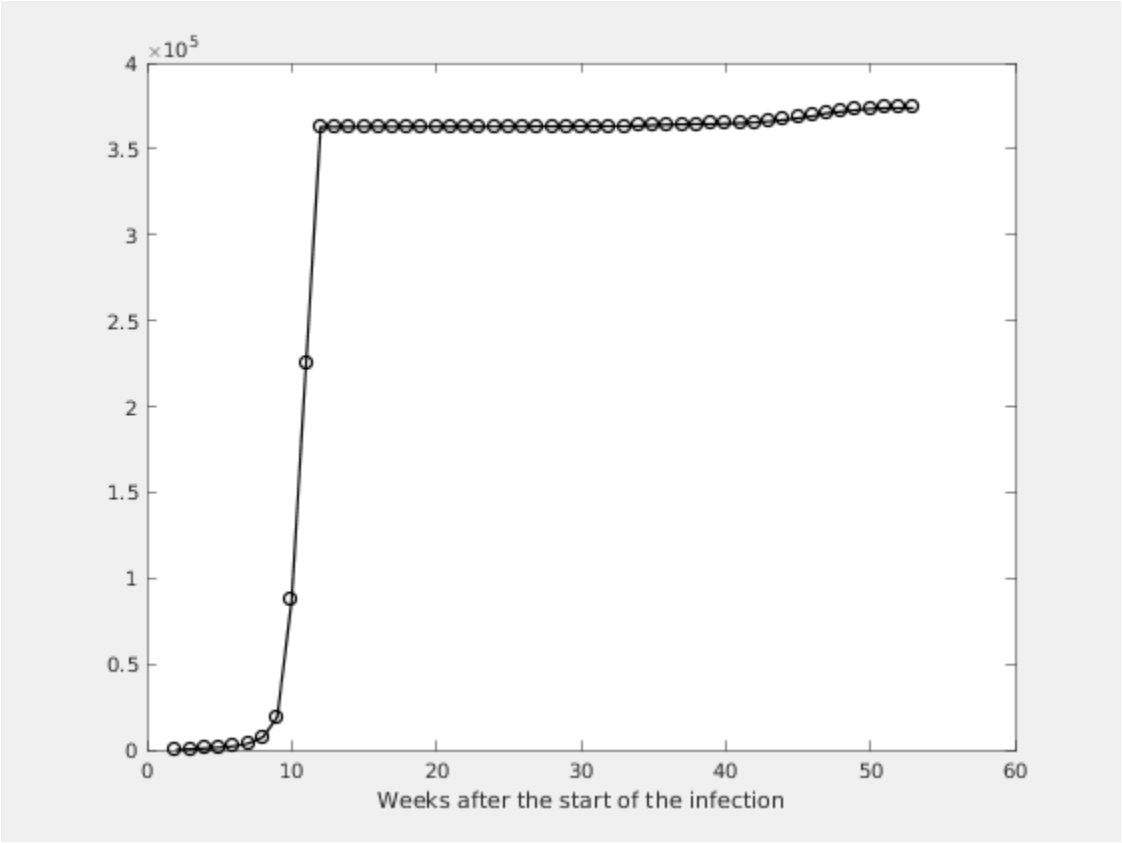


Figure 1.2. Number of the total registered cases



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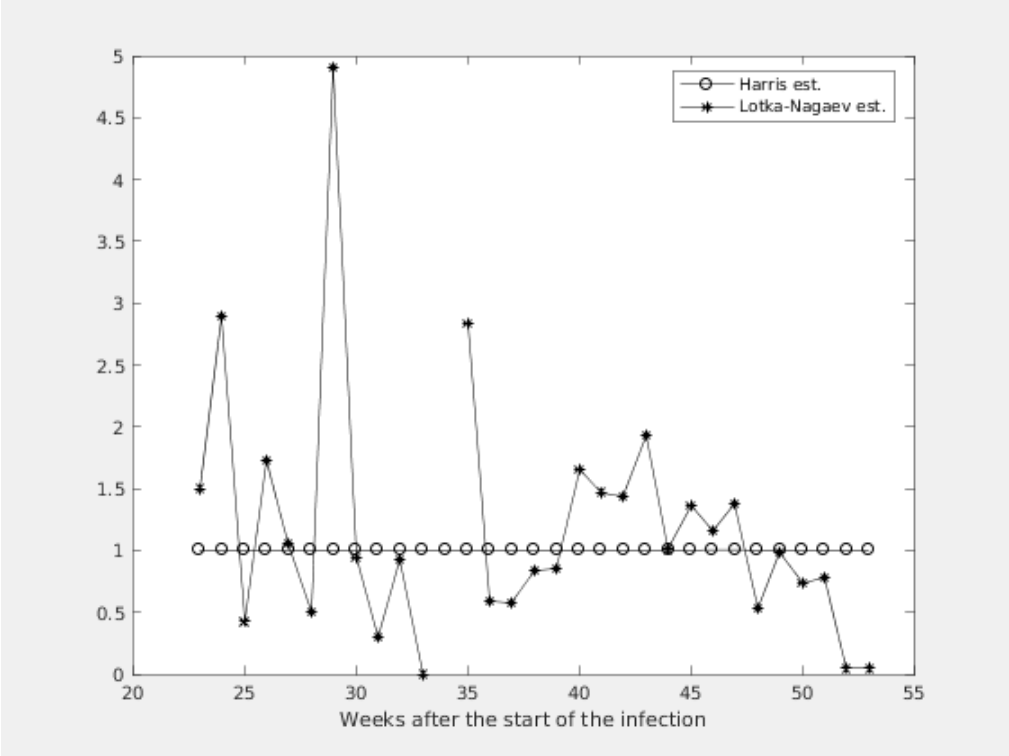


Figure 2.2. Figure

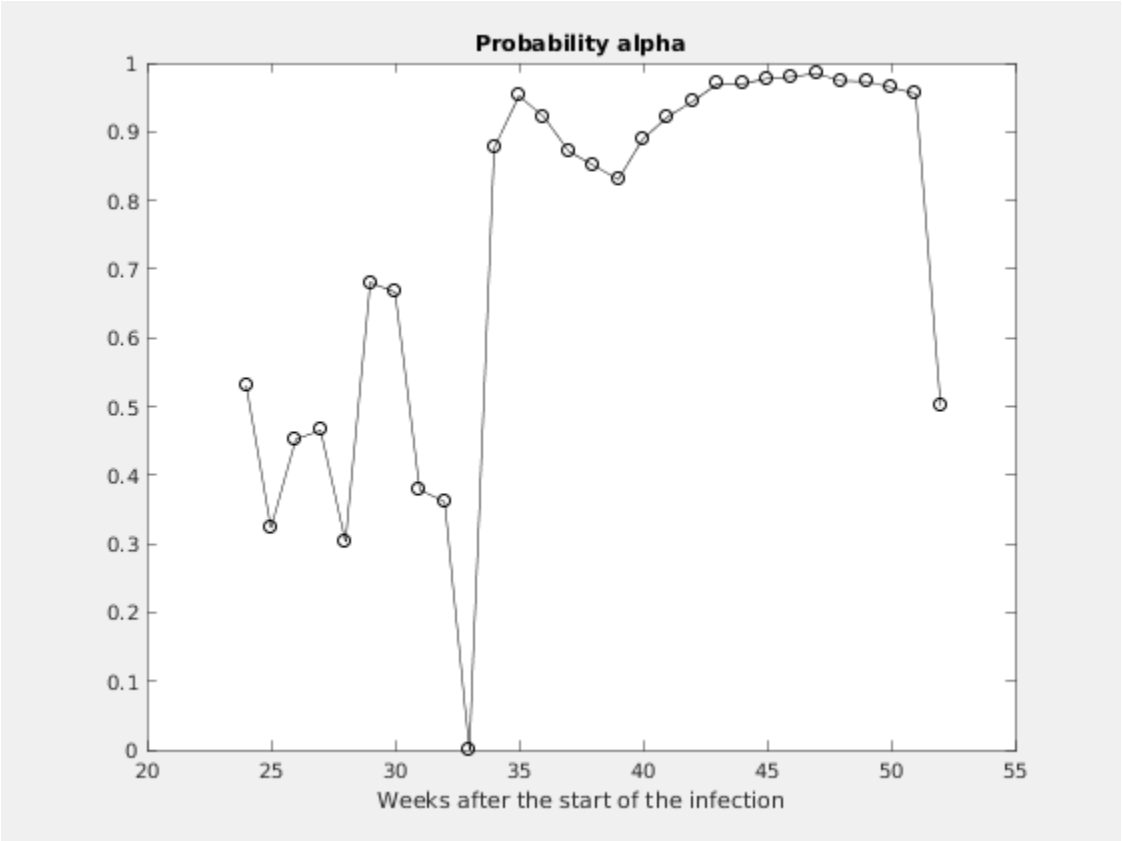


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

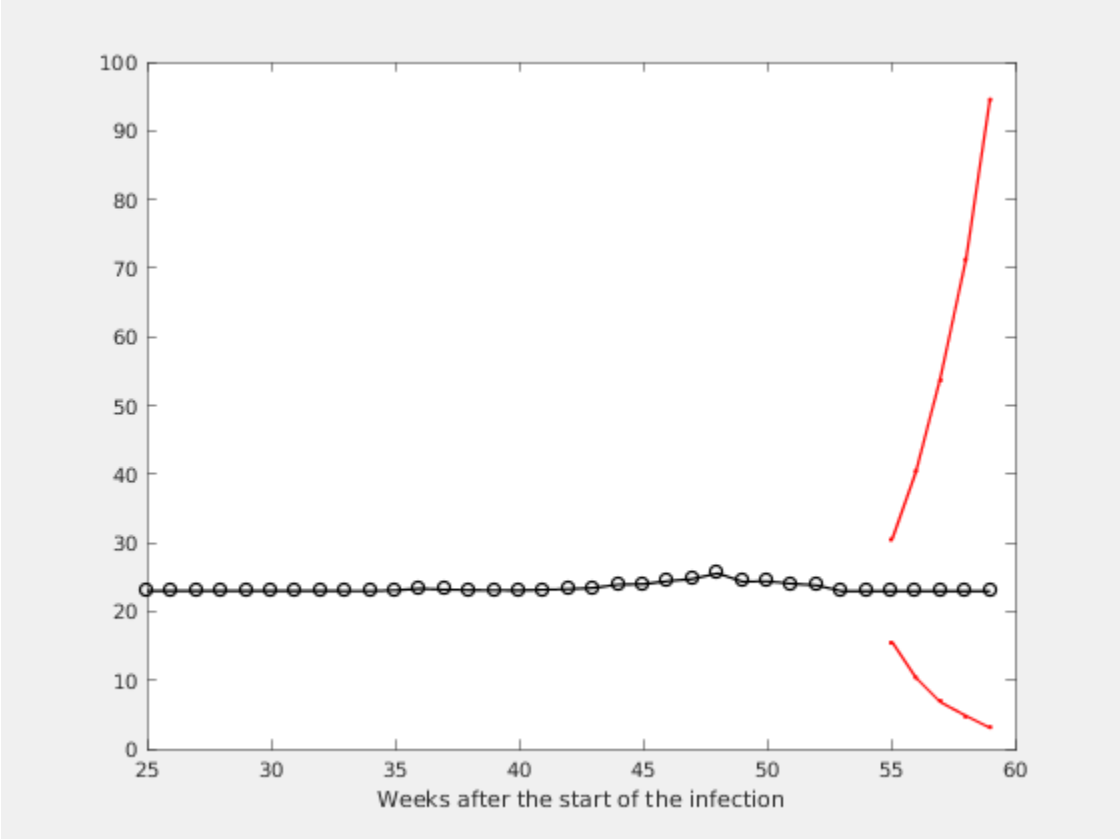
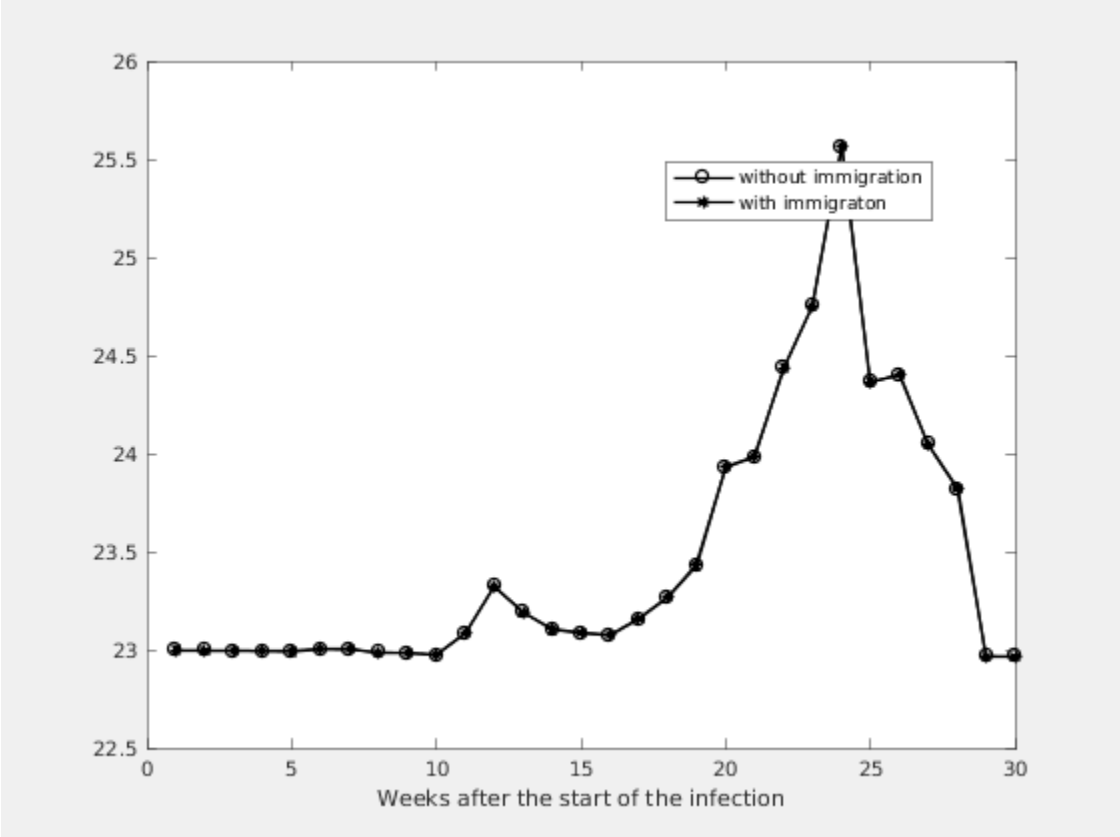


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	1.0023	0.6552 - 1.3493	0.9849	26	26
3	1.0017	0.6591 - 1.3442	0.9736	24	24
2	1.0013	0.6629 - 1.3396	0.9732	24	24
1	1.0000	0.6656 - 1.3343	0.9646	24	24
0	1.0000	0.6694 - 1.3305	0.9552	24	24