Branching stochastic processes as models of Covid-19 epidemic development

Japan - week 53

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Publication date 20-Mar-2022 03:14:10

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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 Japan. 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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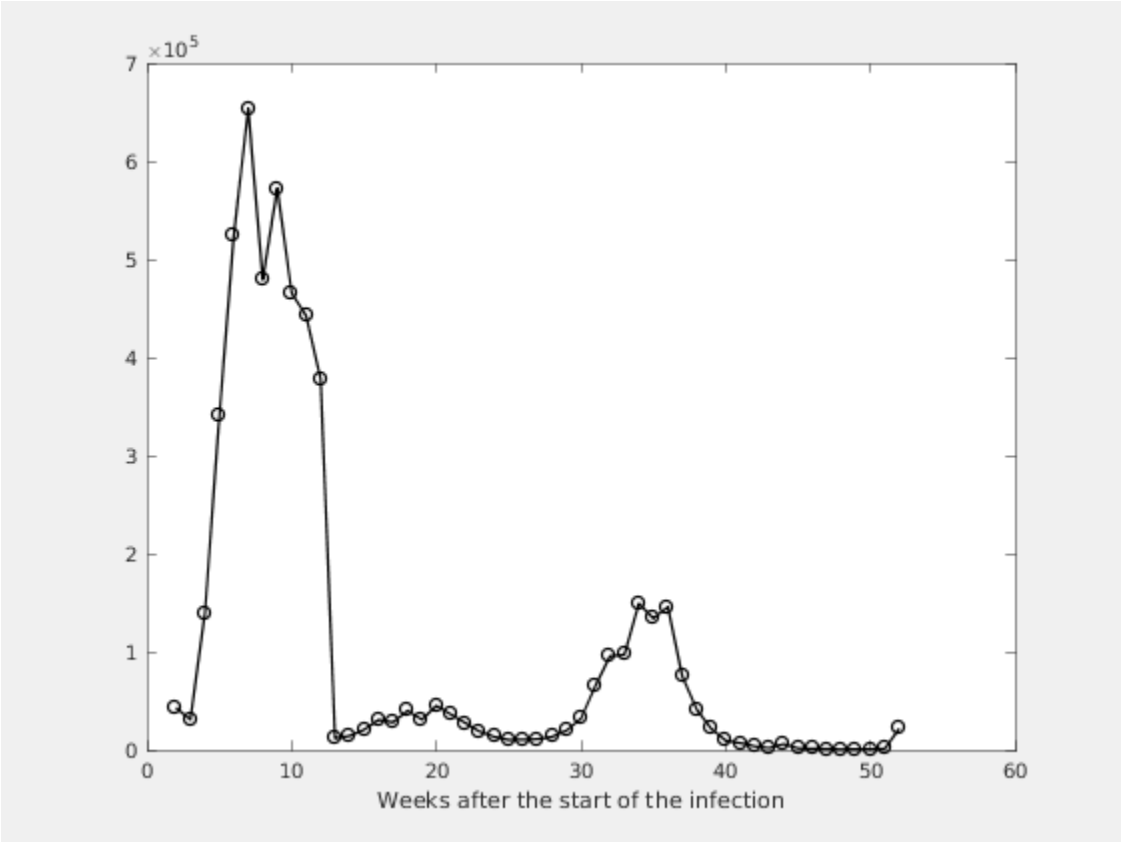
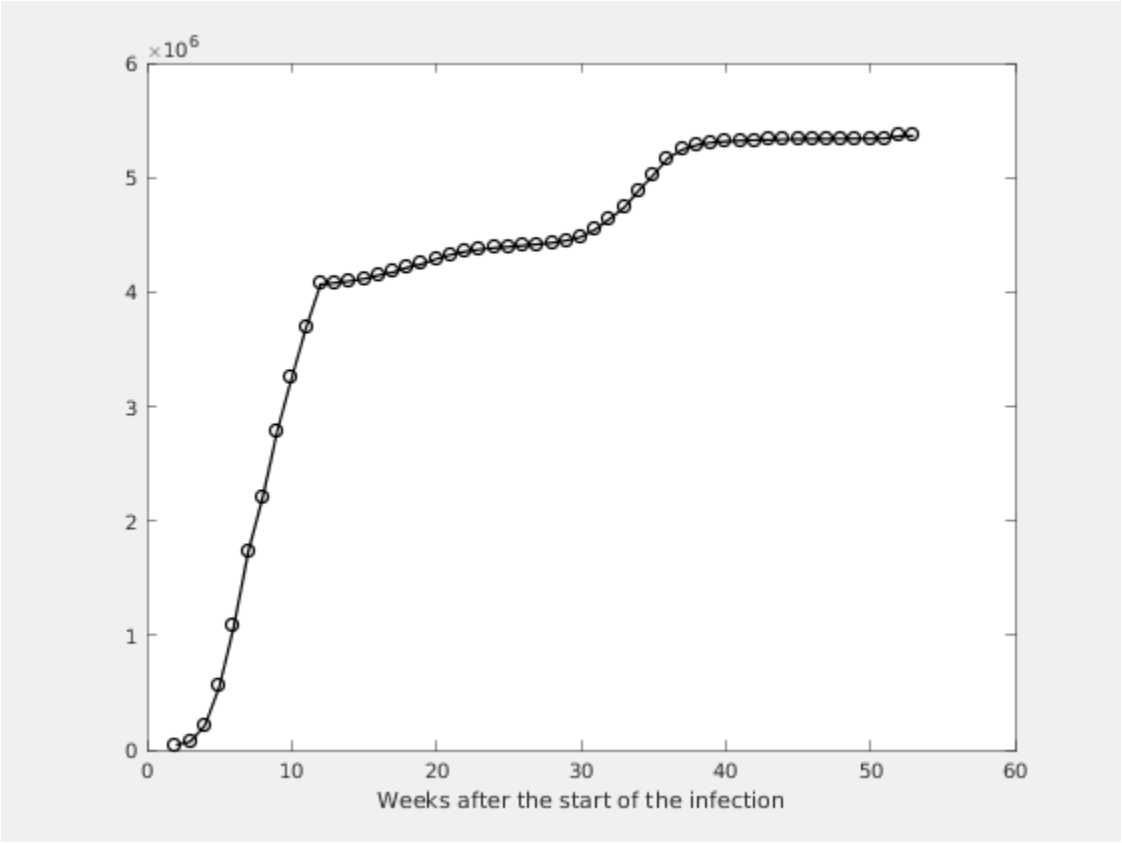


Figure 1.2. Number of the total registered cases



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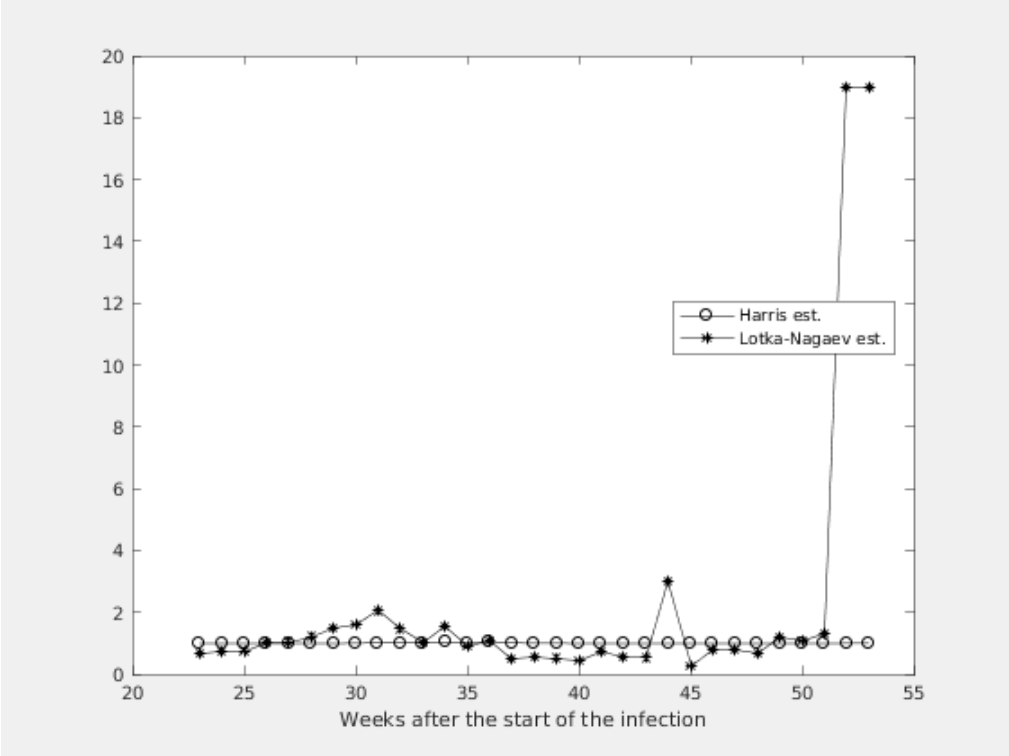


Figure 2.2. Figure

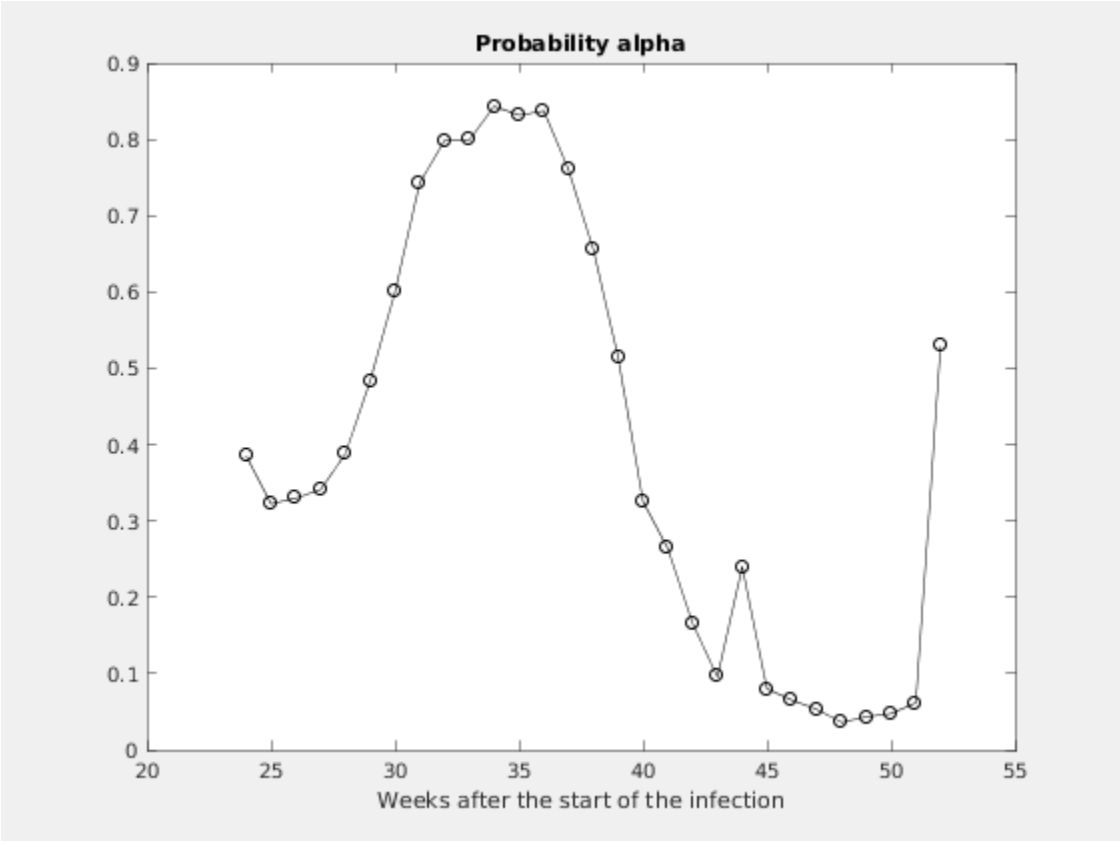


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

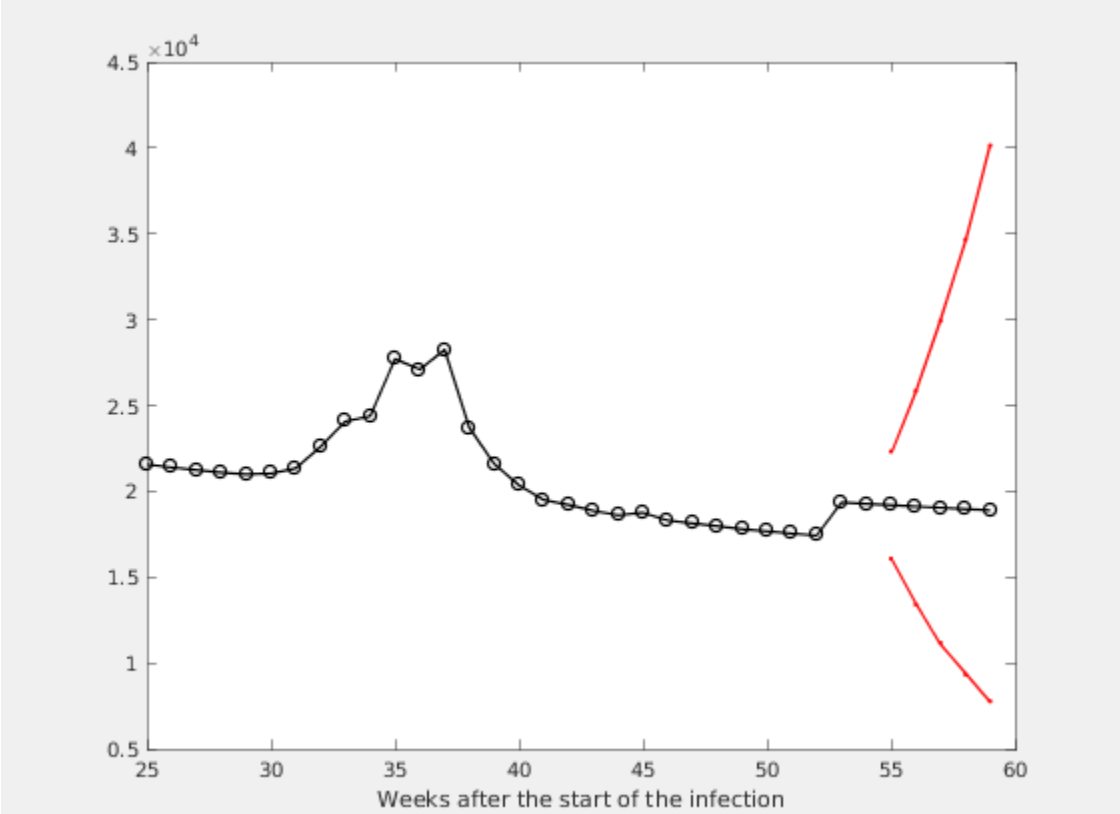
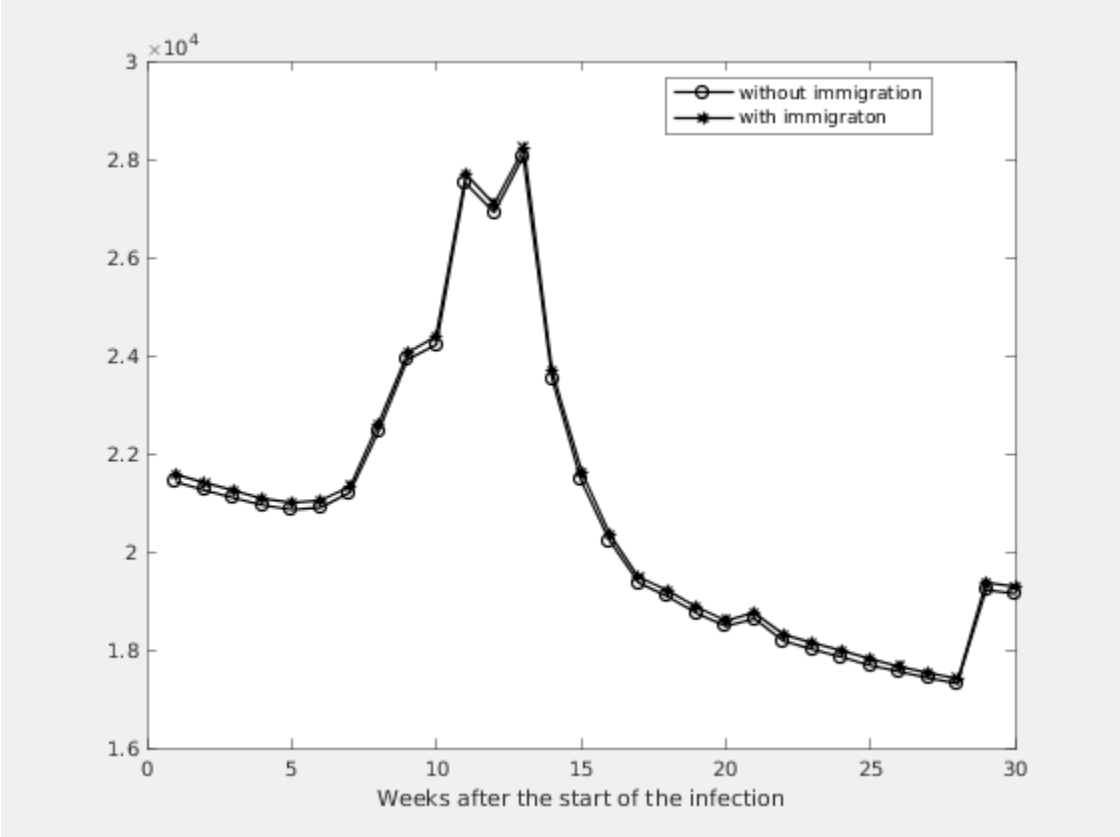


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	0.9921	0.8395 - 1.1447	0.0531	17971	17850
3	0.9921	0.8412 - 1.1430	0.0362	17802	17682
2	0.9922	0.8429 - 1.1415	0.0433	17673	17554
1	0.9960	0.8483 - 1.1437	0.0477	17541	17423
0	0.9960	0.8498 - 1.1422	0.0616	17428	17311