Branching stochastic processes as models of Covid-19 epidemic development

Iran - 20201214

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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 Iran. 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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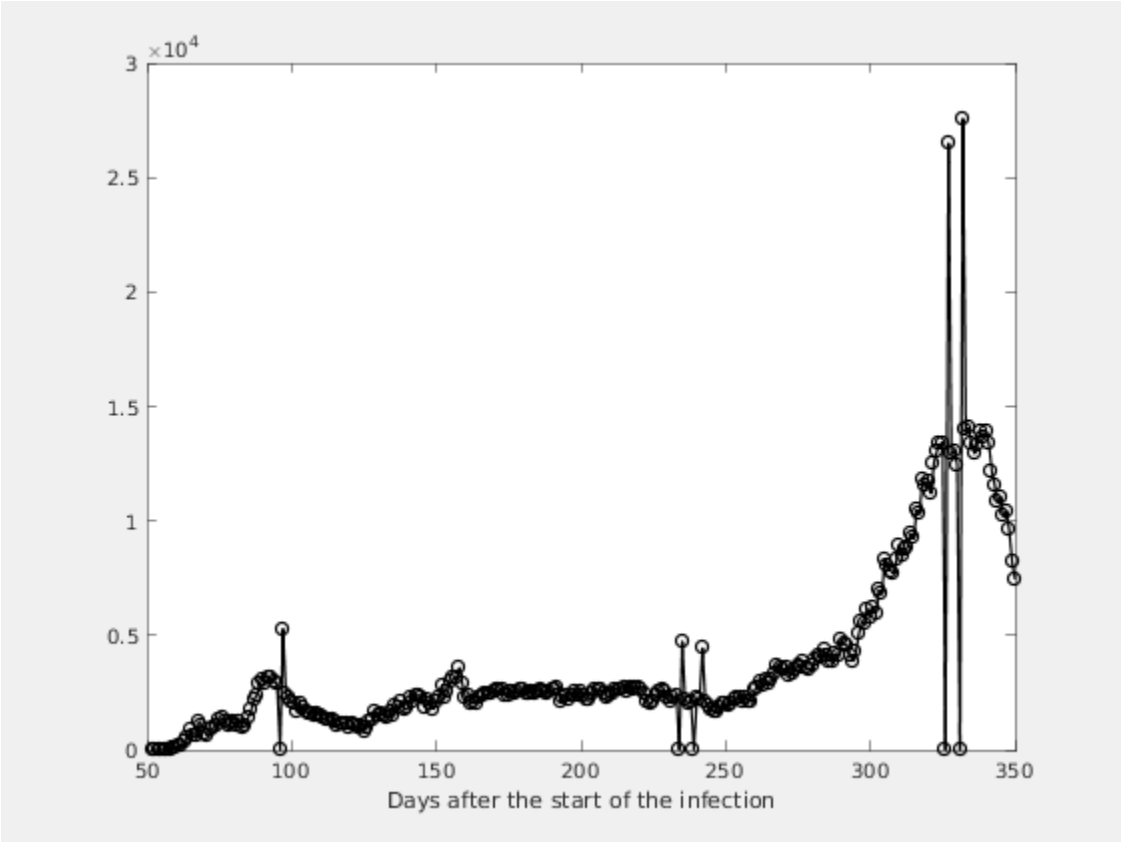
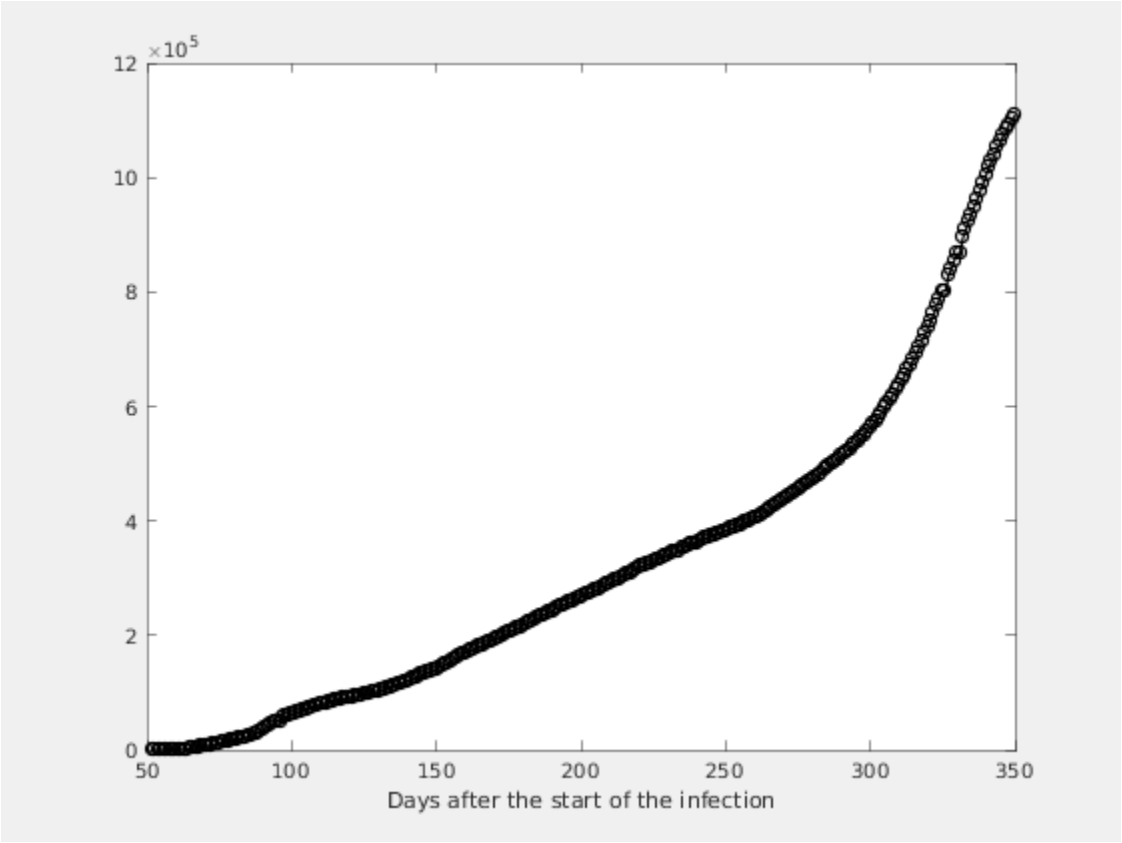


Figure 1.2. Number of the total registered cases



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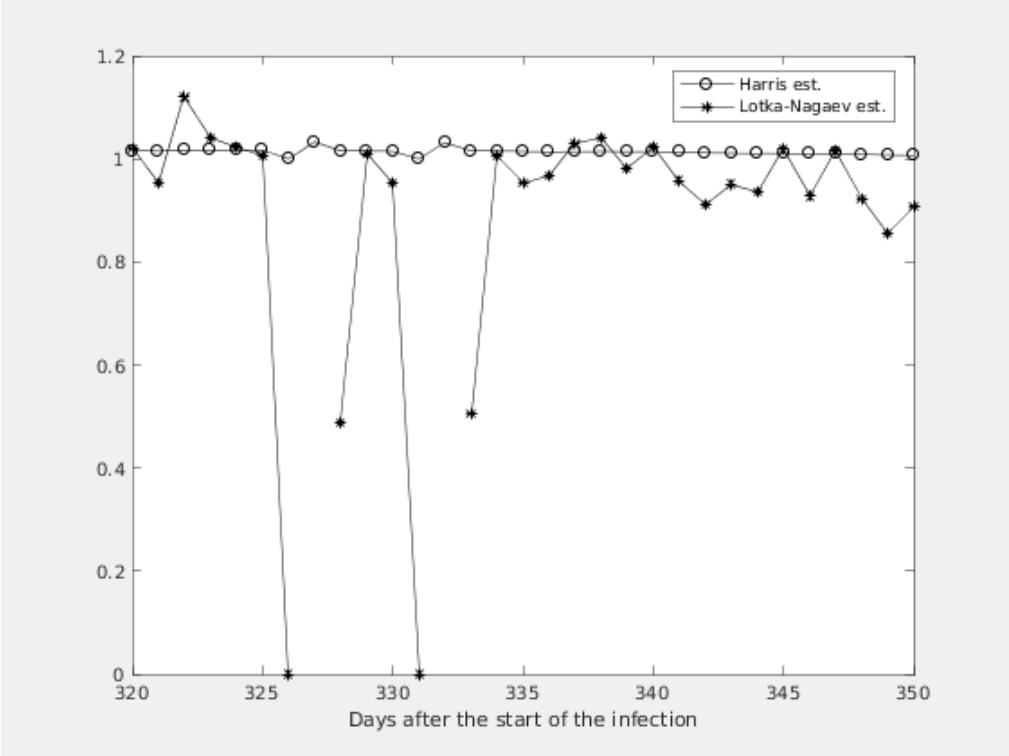


Figure 2.2. Figure

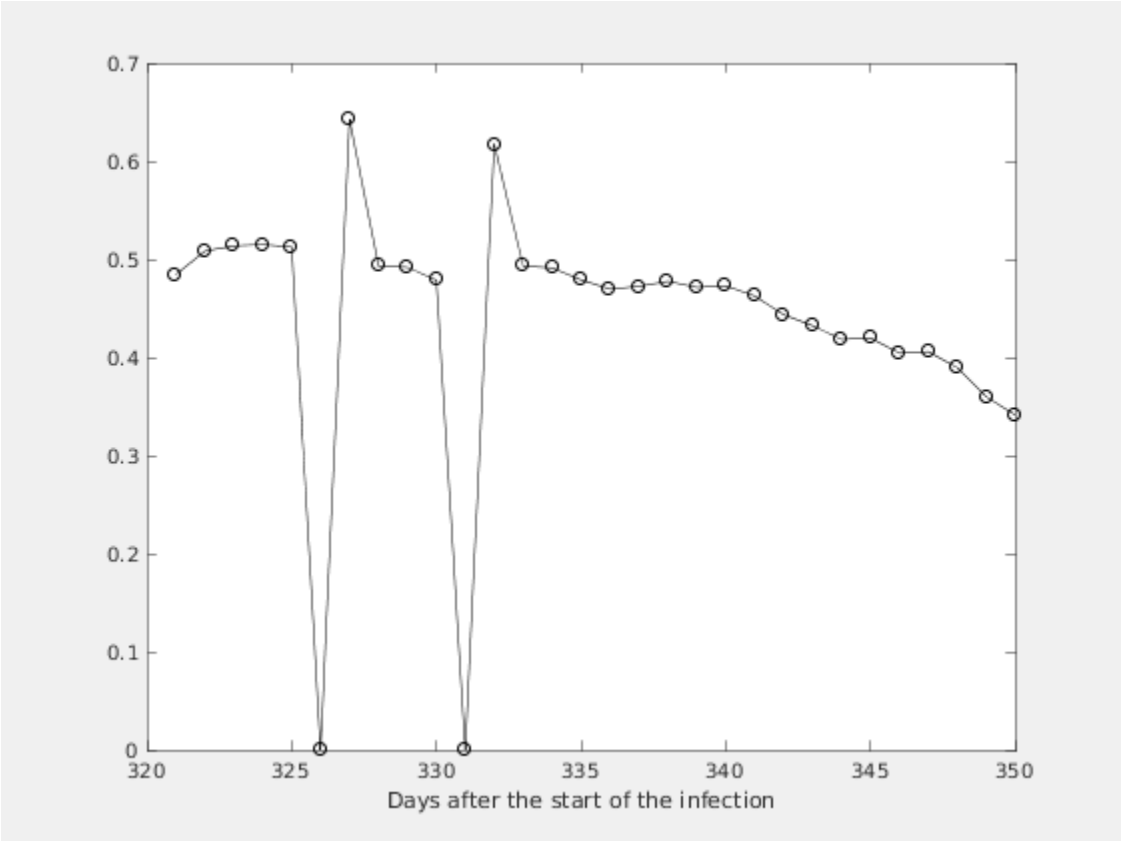
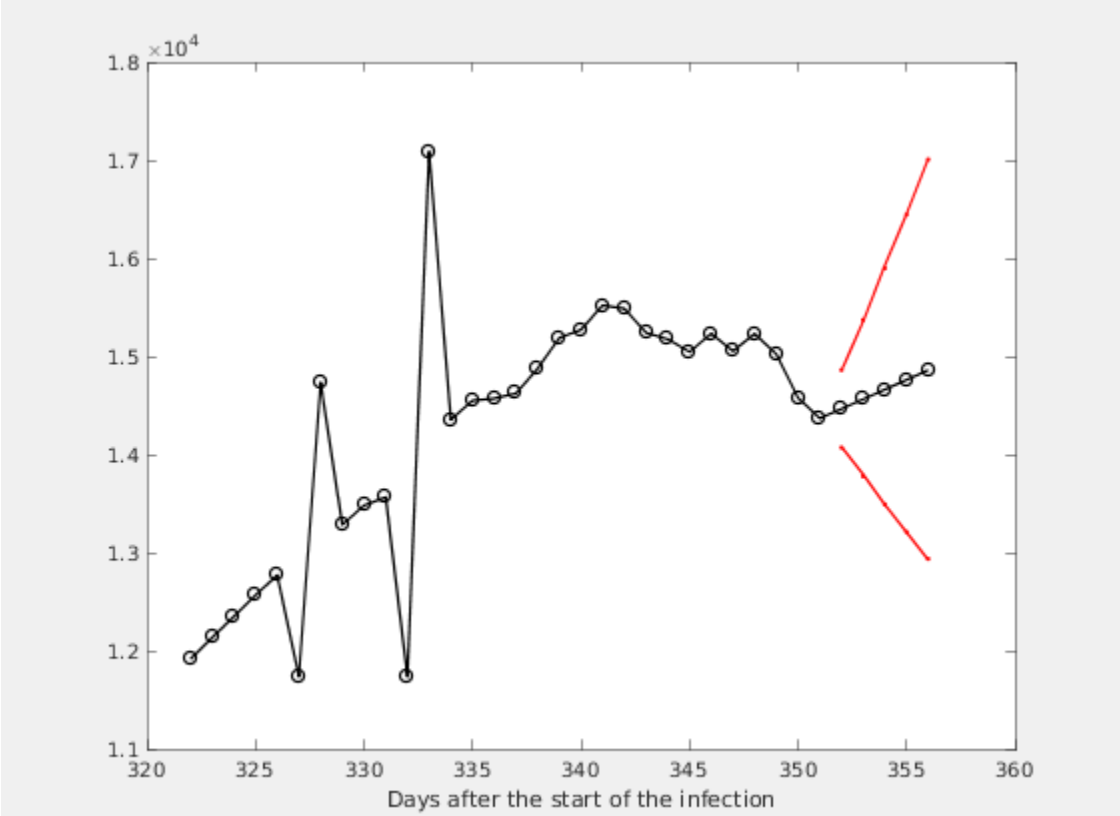


Figure 2.3. Expected number of the nonregistered infected individuals without immigration



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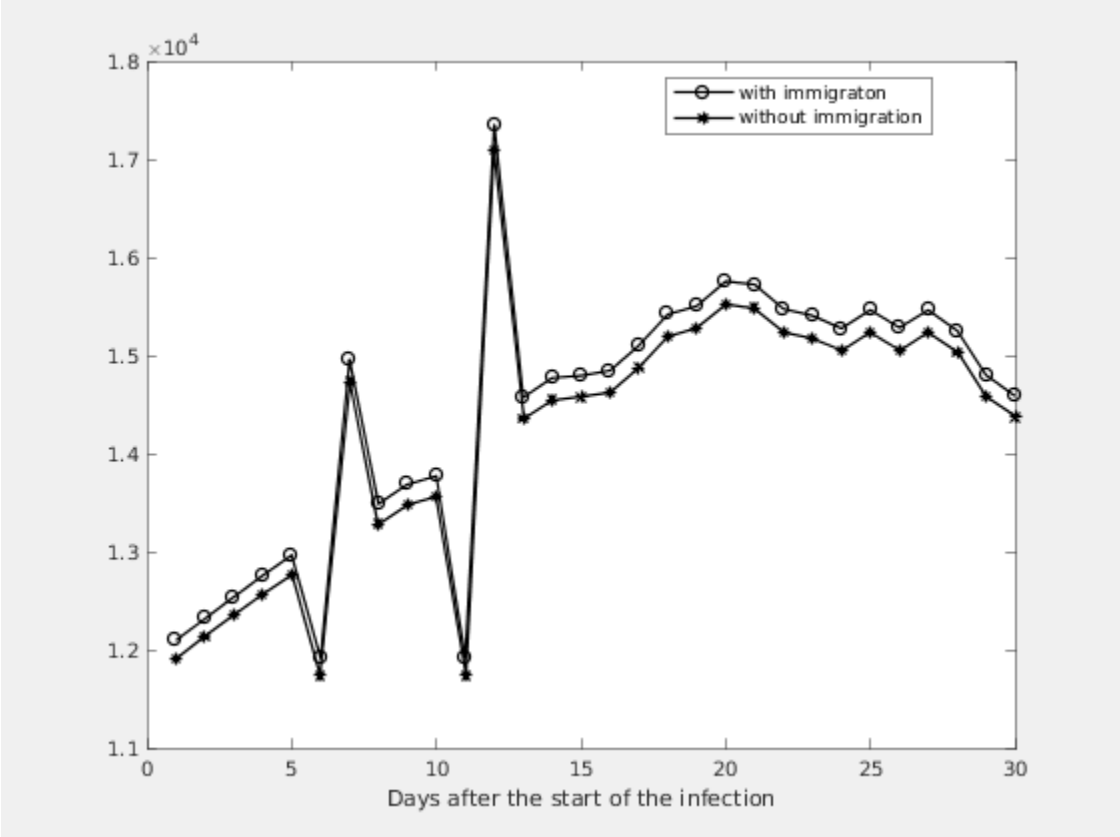

Estimation of the model parameters.

k	m	ci	alpha	M1	A1
4	1.0096	0.9811 - 1.0381	0.4185	15046	15275
3	1.0097	0.9814 - 1.0380	0.4198	15233	15464
2	1.0089	0.9807 - 1.0370	0.4044	15055	15283
1	1.0075	0.9795 - 1.0355	0.4058	15230	15462
0	1.0068	0.9790 - 1.0346	0.3897	15024	15252