Branching stochastic processes as models of Covid-19 epidemic development

Senegal - week 53

N. Yanev, V. Stoimenova, D. Atanasov

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

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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 Senegal. 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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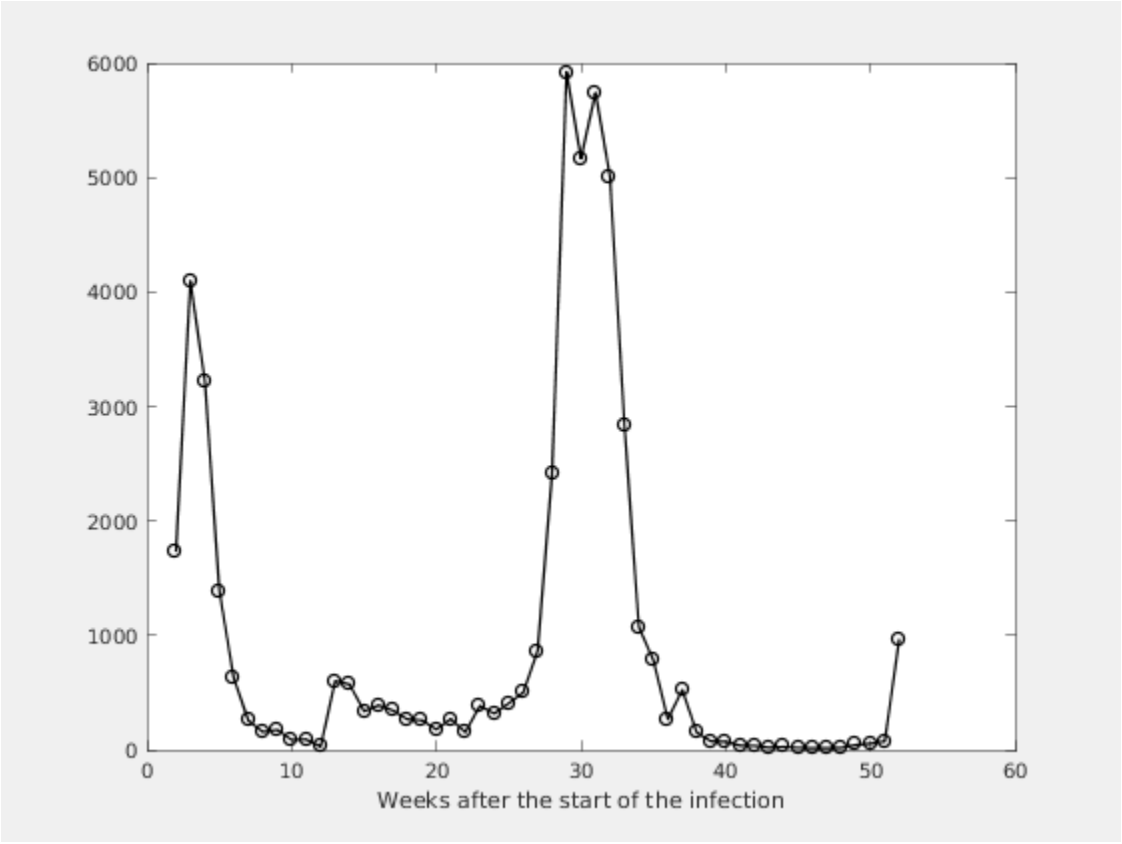
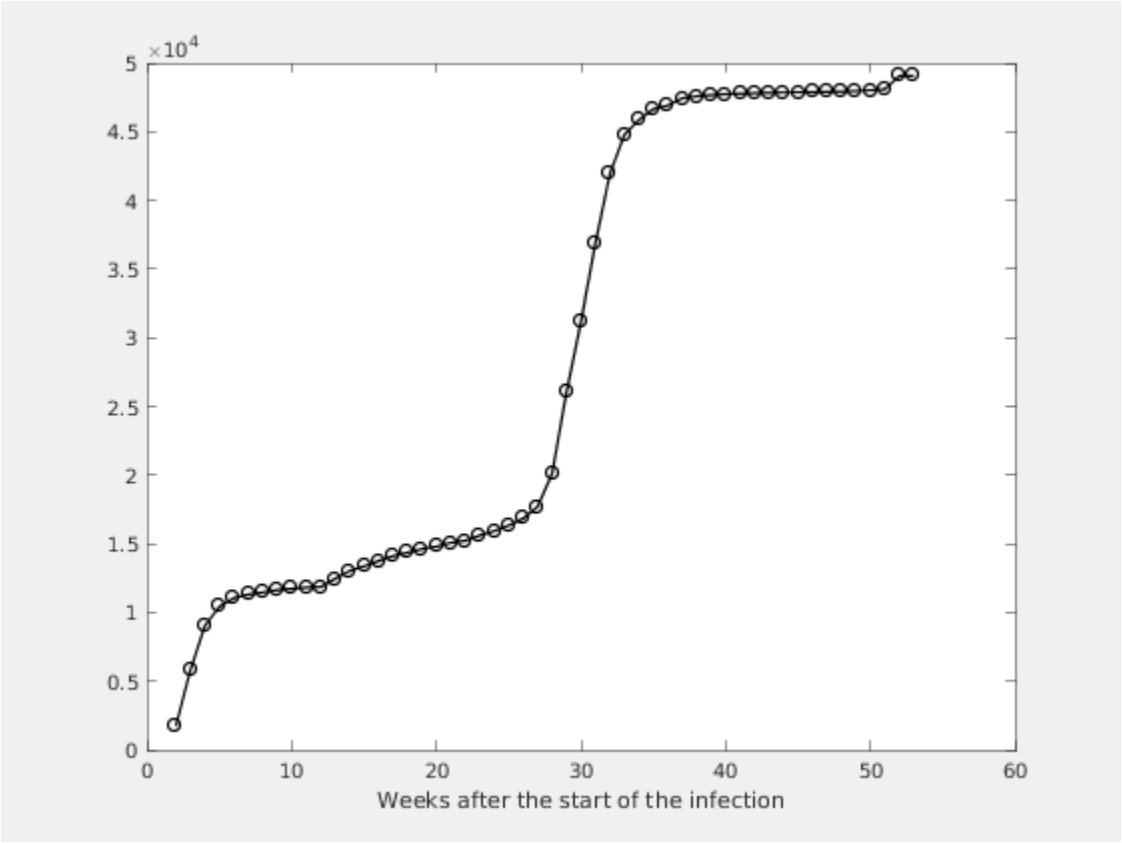


Figure 1.2. Number of the total registered cases



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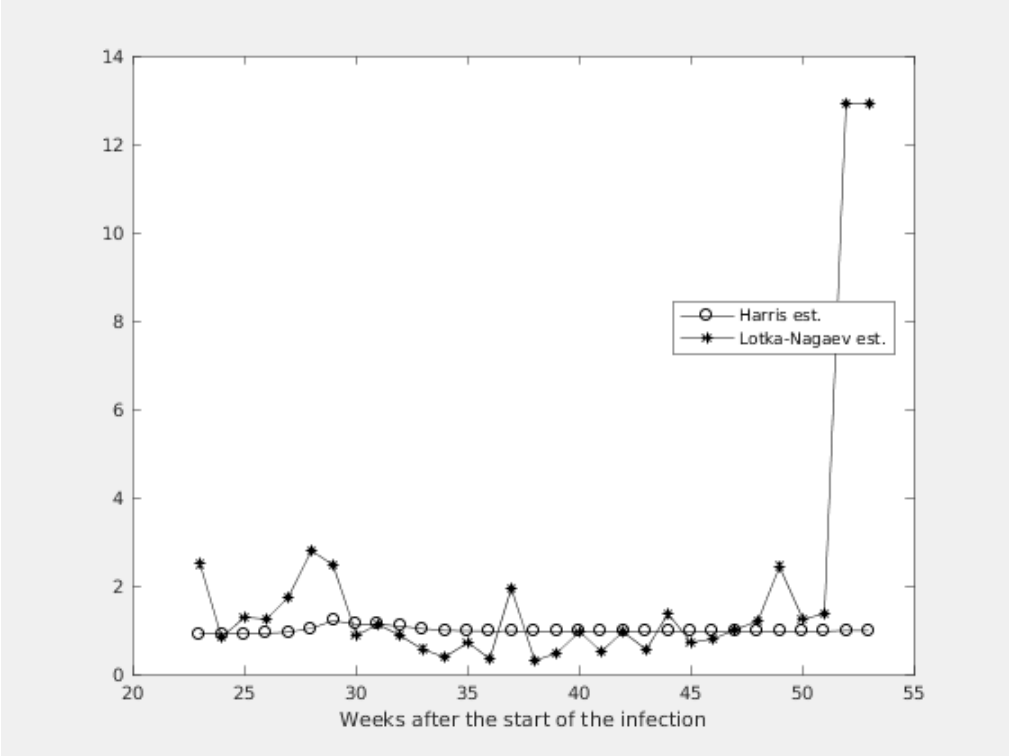


Figure 2.2. Figure

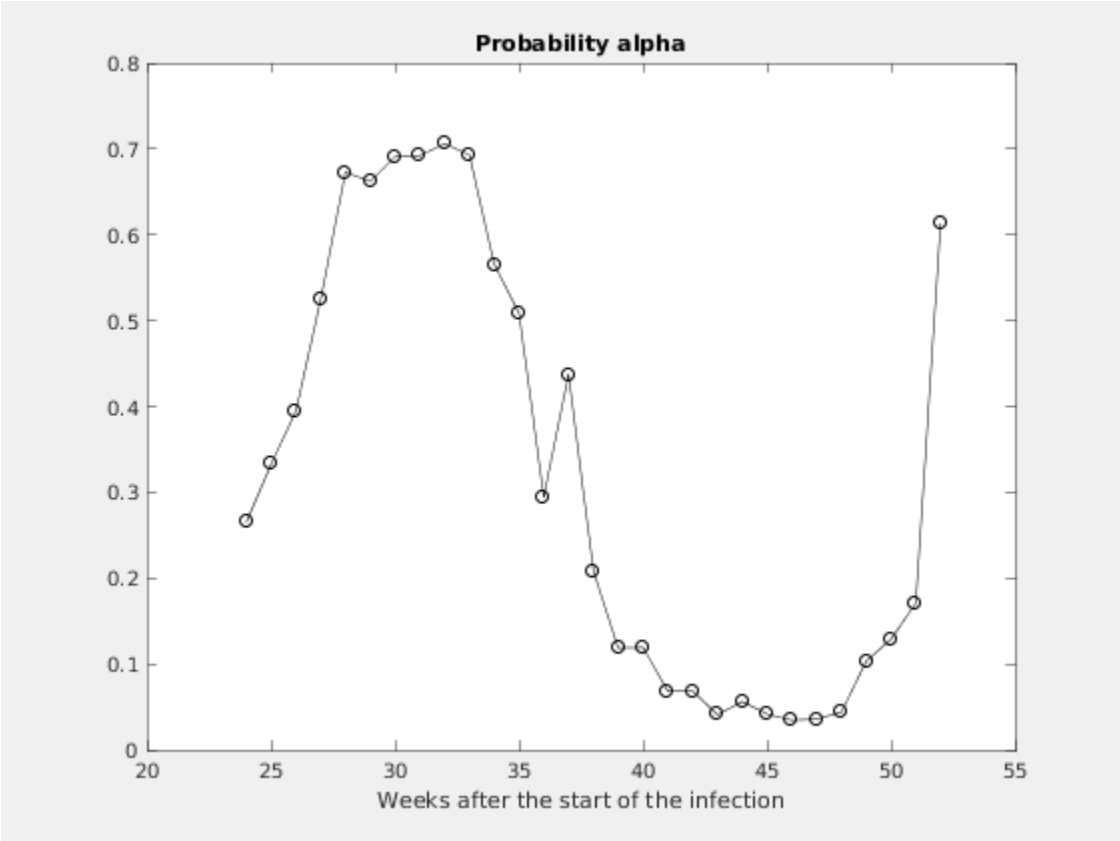


Figure 2.3. Expected number of the nonregistered infected individuals without immigration

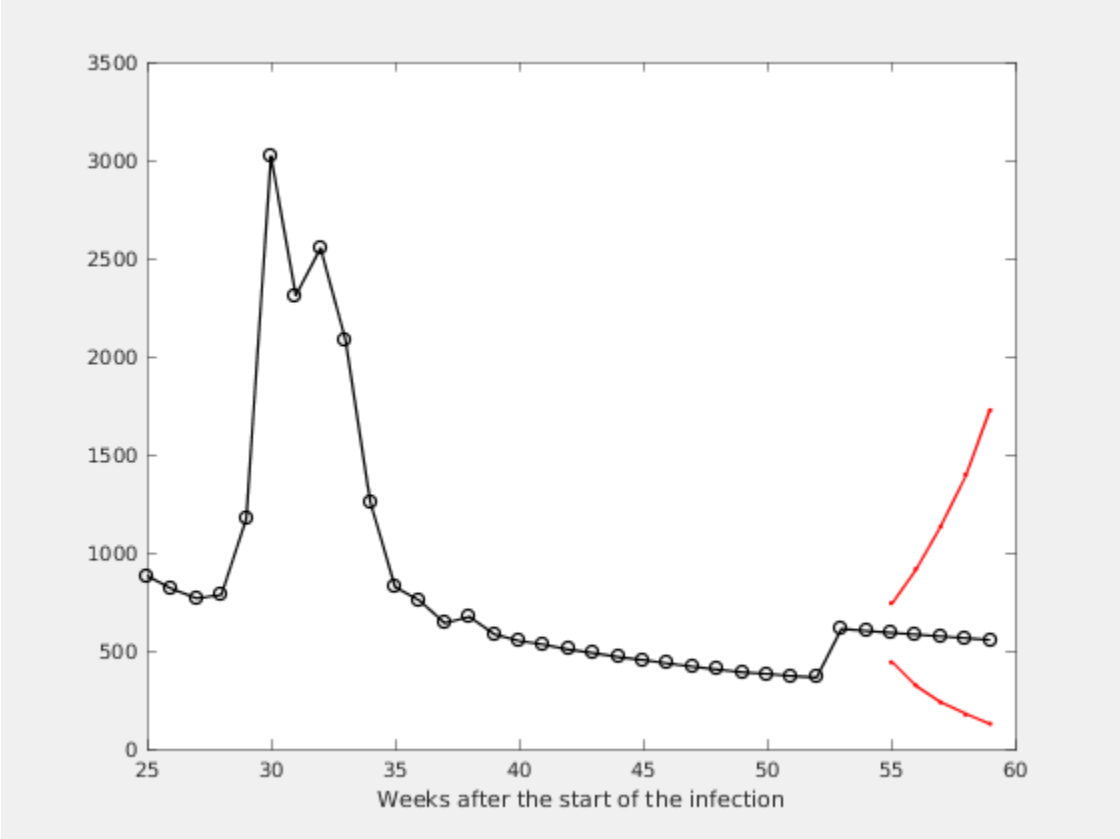
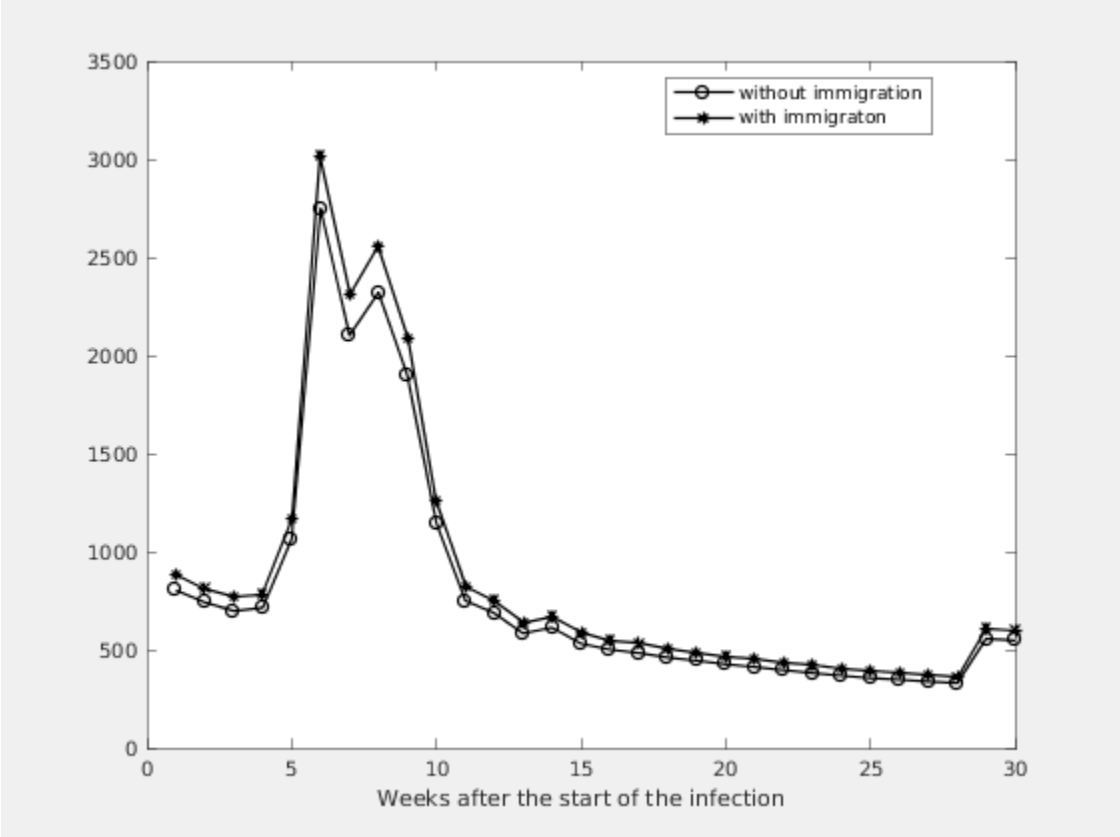


Figure 2.4. Expected number of the nonregistered infected individuals with immigration



Estimation of the model parameters.

k	m	ci	alpha	A1	M1
4	0.9648	0.7395 - 1.1902	0.0358	404	368
3	0.9651	0.7422 - 1.1879	0.0441	391	355
2	0.9655	0.7449 - 1.1861	0.1032	382	348
1	0.9842	0.7659 - 1.2025	0.1290	372	338
0	0.9842	0.7683 - 1.2001	0.1711	363	330