

CORRECTION

Correction: Accounting for non-stationarity in epidemiology by embedding time-varying parameters in stochastic models

The *PLOS Computational Biology* Staff

There are at least three errors in the manuscript, they are as follows:

- In the “**Models with time-varying parameters**” paragraph after equation (4), for the sentences

“ $\varepsilon^i(t)$ describe the clustering of the population [39,40] but can also describe a reduction in the population due to voluntary avoidance behavior or social distancing. However due to the absence of structural identifiability properties [41, 42] it should be very difficult to estimate simultaneously both $\beta(t)$ and $\varepsilon^i(t)$.”

“ $\varepsilon^i(t)$ ” must be replaced by “ $\varepsilon_i(t)$ ” in accordance with the rest of the manuscript. Then these sentences become:

“ $\varepsilon_i(t)$ describe the clustering of the population [39,40] but can also describe a reduction in the population due to voluntary avoidance behavior or social distancing. However due to the absence of structural identifiability properties [41, 42] it should be very difficult to estimate simultaneously both $\beta(t)$ and $\varepsilon_i(t)$.”

- In the Fig 3 caption the equation of $\beta(t)$ must be read as:

“ $\beta(t) = \beta_0 \cdot (1 + \beta_1 \sin(2\pi t/365 + 2\pi\phi) + \beta_2 \sin(2\pi t/(3 \cdot 365) + 2\pi\phi) + \beta_3 \sin(2\pi t/(0.5 \cdot 365) + 2\pi\phi))$ and not:

“ $\beta(t) = \beta_0 \cdot (1 + \beta_1 \sin(2\pi t/365 + 2\pi\phi) + \beta_2 \sin(2\pi t/(3 \cdot 365) + 2\pi\phi) + \beta_3 \sin(2\pi t/(0.5 \cdot 365) + 2\pi\phi))$ ”

- In the “**SIRS model**” paragraph after equation (5), the sentence

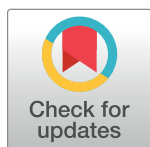
“Initially non-informative priors were used for the volatility σ , the reporting rate ρ and the initial conditions $\gamma(0)$ by $\beta(0)$ but to reduce problems linked to practical non-identifiability materialized by correlation between some estimates, informative priors were used for ρ (see S1 Fig).”

must be replaced (as in the uncorrected proofs) by:

“Initially non-informative priors were used for the volatility σ , the reporting rate ρ and the initial conditions ($S(0)$, $I(0)$, $\beta(0)$) to reduce problems linked to practical non-identifiability materialized by correlation between some estimates, informative priors were used for ρ (see S1 Fig).”

Reference

1. Cazelles B, Champagne C, Dureau J (2018) Accounting for non-stationarity in epidemiology by embedding time-varying parameters in stochastic models. *PLoS Comput Biol* 14(8): e1006211. <https://doi.org/10.1371/journal.pcbi.1006211> PMID: 30110322



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