Correction to: Using Semi-Markov Chains to Solve Semi-Markov Processes

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Published online: 7 November 2020

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Correction to: Methodology and Computing in Applied Probability
<https://doi.org/10.1007/s11009-020-09820-y>

The original version of this article contained mistakes and the author would like to correct them.

In the published version of this article, in the definition of the norm of $\mathbf{A}(t)$ and Propositions 2 and 3, the norm is missed. The right statements are listed as follows:

The definition of the norm of $\mathbf{A}(t)$ in Page 7 should read:

Consider now the function $A_{ij}(t)$ defined on $E \times E \times \mathbb{R}$ such that $A_{ij}(t) = 0$ for all $i, j \in E$ and $t < 0$, and define the following norm on $[0, t]$:

$$\|\mathbf{A}\|(t) = \sup_{0 \leq u \leq t} \|\mathbf{A}\|(u)$$

Proposition 2 in Page 8 should read:

Proposition 2. The distance between transition function matrices, $\tilde{\mathbf{P}}_h(t)$ and $\mathbf{P}(t)$, verifies the following inequality

$$\|\tilde{\mathbf{P}}_h - \mathbf{P}\|(t) \leq \min \left\{ \kappa(\tilde{\mathbf{Q}}_h, \mathbf{Q})(t), \kappa(\mathbf{Q}, \tilde{\mathbf{Q}}_h)(t) \right\},$$

The online version of the original article can be found at <https://doi.org/10.1007/s11009-020-09820-y>

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where

$$\kappa\left(\tilde{\mathbf{Q}}_h, \mathbf{Q}\right)(t) = s^2 \cdot \|\boldsymbol{\Psi}_h\|(t) \cdot \left\| \tilde{\mathbf{Q}}_h - \mathbf{Q} \right\|(t) \cdot (2\|\boldsymbol{\Psi}\|(t) + 1).$$

Proposition 3 in Page 8 should read:

Proposition 3. If for a fixed time $t > 0$, the matrices $\left(\mathbf{I} - \tilde{\mathbf{P}}_h(t)\right)$ and $(\mathbf{I} - \mathbf{P}(t))$ are nonsingular, then

$$\left\| \tilde{\mathbf{P}}_h - \mathbf{P} \right\|(t) \leq \min \left\{ \lambda\left(\tilde{\mathbf{Q}}_h, \mathbf{Q}\right)(t), \lambda\left(\mathbf{Q}, \tilde{\mathbf{Q}}_h\right)(t) \right\},$$

where

$$\lambda\left(\tilde{\mathbf{Q}}_h, \mathbf{Q}\right)(t) = \delta_h \cdot s^2 \cdot \max_{i,j} [\mathbf{I} - \mathbf{Q}(t)]^{-1}(i, j) \cdot \left(2 \max_{i,j} [\mathbf{I} - \tilde{\mathbf{Q}}_h(t)]^{-1}(i, j) + 1 \right).$$

The original article has been corrected.

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