



Correction to: A sequential update algorithm for computing the stationary distribution vector in upper block-Hessenberg Markov chains

Hiroyuki Masuyama¹

Published online: 4 April 2019
© Springer Science+Business Media, LLC, part of Springer Nature 2019

Correction to: Queueing Systems <https://doi.org/10.1007/s11134-019-09599-x>

The original version of this article unfortunately contained the following errors:

In Introduction, below Eq. (1.3), the sentence should read “From (1.2) and (1.3), we have” instead of “From (1.2) and (1.6), we have”. In the same section, under Eq. (1.6), the sentence should read

“Note that ${}_{(n)}\hat{\boldsymbol{\pi}}$ is equal to ${}_{(n)}\bar{\boldsymbol{\pi}}$ in (1.3) with ${}_{(n)}\boldsymbol{\alpha} = {}_{(n)}\hat{\boldsymbol{\alpha}}$,” instead of “Note that ${}_{(n)}\hat{\boldsymbol{\pi}}$ is equal to ${}_{(n)}\bar{\boldsymbol{\pi}}$ in (1.6) with ${}_{(n)}\boldsymbol{\alpha} = {}_{(n)}\hat{\boldsymbol{\alpha}}$ ”.

In Proposition 2.1, the last sentence should read “where, for any vector $\boldsymbol{m} := (m(i))$, $\|\boldsymbol{m}\|$ denotes the total variation norm of \boldsymbol{m} , i.e., $\|\boldsymbol{m}\| = \sum_i |m(i)|$ ”.

The sentence below Eq. (2.20) should read “Using (2.19) and (2.20), we rewrite (2.15) as” instead of “Using (2.10) and (2.20), we rewrite (2.15) as”.

In Remark 2.5, the third sentence should read, “Through numerical experiments, Masuyama [20] investigates such a problem for the *last-column block-augmented truncation*, though the function E is referred to therein as the *error decay function*, instead of the error bound function”.

In section “A counterexample to convergence”, the third sentence of the first paragraph should read “However, it always holds that $\lim_{n \rightarrow \infty} {}_{(n)}\hat{\boldsymbol{\pi}} = \boldsymbol{\pi}$ for *special* upper block-Hessenberg Markov chains such that the $Q_{k,\ell}$ are scalars”.

Above Theorem 3.1, Eq. (3.4) should be:

$$j_n^* \in \arg \min_{j \in \mathbb{N}_n} \frac{y_n(j)}{u_n^*(j)}. \quad (3.4)$$

The original article can be found online at <https://doi.org/10.1007/s11134-019-09599-x>.

✉ Hiroyuki Masuyama
masuyama@sys.i.kyoto-u.ac.jp

¹ Department of Systems Science, Graduate School of Informatics, Kyoto University, Kyoto 606-8501, Japan

Under Eq. (3.13), the sentence should read “It also follows from (2.14), (2.19), and (2.20) that” instead of “It also follows from (2.14), (2.10), and (2.20) that”.

In Remark 3.6, the last equation should read:

$$\check{y}_n := (\check{y}_n(j))_{j \in \mathbb{M}_n} = \mathbf{v}_n + \sum_{k=0}^n \mathbf{U}_{n,k}^* \mathbf{w}_{k,n},$$

and find

$$j_n^* \in \arg \min_{j \in \mathbb{M}_n} \frac{\check{y}_n(j)}{u_n^*(j)}.$$

The correct reference 12 is given below:

12. Kontoyiannis, I., Meyn, S.P.: On the f -norm ergodicity of Markov processes in continuous time. *Electron. Commun. Probab.* **21**, Paper no. 77, 1–10 (2016)

The original article has been corrected.

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.