Erratum

Morais, M.C. (2024). *Stochastic Processes: Theory, Examples & Exercises*. IST Press (Yellow Series).

Page	Obs.	Where we read	We should read
vi	line 1	it based	it is based
8	line 2	fully characterized the	fully characterize the
19	line 2	$E(U^2) - E(U^2)$	$E(U^2) - E^2(U)$
34	line −6	his/her	his(her)
51	Eq. (1.40)	$t < \min\{\lambda_1, \ldots, \lambda_n)$	$t < \min\{\lambda_1, \ldots, \lambda_n\}$
100	line −5	$m(4) + \int_4^t (24 - 3t)\, dz$	$m(4) + \int_4^t (24 - 3z)\, dz$
106	line 10	$E(S_1 \mid N(1) = 1)$	$E[S_1 \mid N(1) = 1]$
116	line −4	$P[N(1) = 0]$	$P[N(t) = 0]$
121	lines −10 and −9	amount payed to	amount payed by
122	line −4,	$\overset{N(t) \perp\!\!\!\perp Y_i}{=} E\left(e^{s\, \sum_{i=1}^n Y_i}\right)$	$\overset{N(t) \perp\!\!\!\perp Y_i}{=} E\left(s^{\sum_{i=1}^n Y_i}\right)$
	line −3,	$= E\left(\prod_{i=1}^n e^{s\, Y_i}\right)$	$= E\left(\prod_{i=1}^n s^{Y_i}\right)$
	line −2	$\overset{Y_i\ indep.}{=} \left[E\left(e^{s\, Y}\right)\right]^n$	$\overset{Y_i\ indep.}{=} \left[E\left(s^{Y}\right)\right]^n$
138	line 11	$, \quad n \in \{1, \ldots, \lfloor t \rfloor\}.$	$, \quad n \in \mathbb{N}.$
150	line 2	The renewal functionis	The renewal function is
187	line 1	$x \leq 0$ or ă$y \leq 0$	$x \leq 0$ or $y \leq 0$
221	footnote 85	[79, p. 440/445, Example 8.24/8.26]	[79, p. 440, examples 8.24 and 8.26]

Continues on the following page

Continuation of the previous page

Page	Obs.	Where we read	We should read
271	lines 10, 11	$\sum_{n=1}^{+\infty} P_{ii}^n = \sum_{n=1}^{+\infty} P_{ii}^n$ $= \sum_{n=1}^{+\infty} \left[\frac{1}{2} + \frac{(-1)^n}{2}\right]$	$\sum_{n=1}^{+\infty} P_{ii}^n = \sum_{n=1}^{+\infty} \left[\frac{1}{2} + \frac{(-1)^n}{2}\right]$
279	line −2	DTMC. As a consequence,	irreducible DTMC. As a consequence,
285	line 12	with state space $\mathcal{S} = \{1, 2, 3\}$.	with finite state space $\mathcal{S} = \{1, 2, 3\}$.
329	line −5	$X_n = \sum_{l=1}^{X_{n-1}} Z_l, \quad n \in \mathbb{N}$	$X_n = \sum_{l=1}^{X_{n-1}} Z_{l,n-1}, \quad n \in \mathbb{N}$
331	line −4	$= E\left(s^{X_0+\sum_{l=1}^{X} Z_l}\right)$	$= E\left(s^{X_0+\sum_{l=1}^{X_0} Z_l}\right)$
	line −3	$= E\left[E\left(s^{X_0+\sum_{l=1}^{X_0} Z_l} \mid X\right)\right],$	$= E\left[E\left(s^{X_0+\sum_{l=1}^{X_0} Z_l} \mid X_0\right)\right],$
	line −2	where the r.v. $E\left(s^{X+\sum_{l=1}^{X_0} Z_l} \mid X\right)$	where the r.v. $E\left(s^{X+\sum_{l=1}^{X_0} Z_l} \mid X_0\right)$
334	footnote 122	$\ldots, X_2 \neq j, X_1 = k, X_0 = i)$ $\mid X_1 = k) \times P(X_1 = k \mid X_0 = i)$	$\ldots, X_2 \neq j, X_1 = k \mid X_0 = i)$ $\mid X_1 = k, X_0 = i) \times P(X_1 = k \mid X_0 = i)$
339	Example 3.146	**First passage probabilities** (bis)	**First passage probabilities**
357	line −1	$\begin{bmatrix} 0.6 + 0.4\,e^{-5\times 3.4} & 0.4 - 0.4\,e^{-5\times 3.4} \\ 0.6 - 0.6\,e^{-5\times 3.4} & 0.4 + 0.6\,e^{-5\times 3.4} \end{bmatrix}$	$\begin{bmatrix} 0.6 + 0.4\,e^{-5\times 1} & 0.4 - 0.4\,e^{-5\times 1} \\ 0.6 - 0.6\,e^{-5\times 1} & 0.4 + 0.6\,e^{-5\times 1} \end{bmatrix}$
442	Eq. (4.99)	$(W_q \mid L_q = j)$	$(W_q \mid L_s = j)$
443	line −8	$(W_q \mid L_q = j)$	$(W_q \mid L_s = j)$
454	missing footnote 114		$B(m, m\rho)$ is also called *Erlang's loss formula*, *Erlang-B formula* ([45, p. 81]), or *blocking probability* ([1, p. 116]).

Continues on the following page

Continuation of the previous page

Page	Obs.	Where we read	We should read
465	ref. [29]	Random Processes for Image and Signal Processing. SPIE Optical Engineering Press	*Random Processes for Image and Signal Processing*. SPIE Optical Engineering Press.
	ref. [31]	*(Copenhagen)*, **20**,	*(Copenhagen)* **20**,
	ref. [32]	*(Copenhagen)*, **13**,	*(Copenhagen)* **13**,
	ref. [32]	*(Copenhagen)*, **31**,	*(Copenhagen)* **31**,
500	W_q	$(W_q \mid L_q = j)$	$(W_q \mid L_s = j)$