

Understanding Markov Chains - Examples and Applications

Errata to the First (2013) Edition

- Page 48 line -6, “ $p \lim_{n \rightarrow \infty} (pq)^n = 0$ .”
- Page 53 line -10, “for all  $k \geq 1$ .”
- Page 66, line 3 is redundant.
- Page 94 line 5, “receives one dollar”.
- Page 97 line 10, “ $R$  is a  $(r + 1) \times (N - r)$  matrix”.
- Page 104 line 4, “ $\sum_{l \neq j}$ ”.
- Page 134 line -12, “ $(\pi_1, \pi_2) = (1/1.6, 0.6/1.6)$ ”.
- Page 135 line -7, “ $= 0$ ” (not “ $= +\infty$ ”).
- Page 149 line -3, “ $\sum_{k=1}^{X_n}$ ”.
- Page 163 lines -9 and -8, “ $X_2$ ” (not “ $X_3$ ” or “ $X_4$ ”).
- Page 171 line 12, “ $(\lambda, n)$ ” (not “ $(1, n)$ ”).
- Page 174 line 13, “ $\simeq$ ” (not “ $=$ ”).
- Page 175 line -6, “ $-$ ” (not “ $+$ ”).
- Pages 194-195, change “limiting” to “stationary”.
- Page 206 line 8, “ $T_2 > t_1$ ” (not “ $T_2 > 1$ ”).
- Page 267 line -1, “ $(n + 1 - k)/2$ ” (not “ $(n_1 - k)/2$ ”).
- Page 275 line 4, “ $f(k) = f(0)(f(1))^k$ ”.
- Page 275 line -10, “ $\mathbb{E}[T_0 \mid S_0 = k]$ ”.
- Page 276 line -5, “ $\frac{N-l}{N}$ ” (not “ $\frac{N-l}{l}$ ”).
- Page 288 line 2, “ $\dots \mid X_0 = j$ ” (not “ $\dots \mid X_1 = j$ ”).
- Page 312 line 13, “ $1 - \mathbb{P}(X_n = 1 \mid X_n = 0)$ ”.
- Page 322 line -3, change all “ $\leq$ ” to “ $=$ ” on the right hand side.
- Page 325, the solution of Exercise 10.7 is labeled 10.4.
- Page 326 line -4, change “if and only if” to “if”.
- Page 328 lines 3-4, “ $t_1(t_3 - t_2)\lambda(\lambda + \lambda^2(t_3 - t_2))$ ”, “ $t_1(t_4 - t_2)\lambda(\lambda + \lambda^2(t_4 - t_2))$ ”.
- Page 328 line 6, “ $T_2 > t_1$ ”, not “ $T_2 > 1$ ”.
- Page 328 lines 10,13,14,15, “ $\mathbb{E}[N_{t_2} - N_{t_1}]$ ”, not “ $\mathbb{E}[N_{t_1}]$ ”.
- Page 328 line 15, “ $\lambda(t_2 - t_1)$ ”, not “ $\lambda t_1$ ”.
- Page 332 line -2, the answer should be “ $(e^{\lambda T} - \lambda T - 1)/\lambda$ ” using  $\mathbb{E}[\tau_0 \mid \tau_0 < T] = (1 - e^{-\lambda T}(1 + \lambda T))/(\lambda(1 - e^{-\lambda T}))$  instead of  $\mathbb{E}[\tau_0]$ .