

The Joint Replenishment Problem: Optimal Policy and Exact Evaluation Method

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Erratum

In the article, equation 12 is given by:

$$C(\mathcal{P}) = \frac{\sum_{y=1}^Y \pi_y (O_y + H_y)}{\sum_{y=1}^Y \pi_y T_y} + \sum_{y=1}^Y \pi_y W_y.$$

However, the correct equation is:

$$C(\mathcal{P}) = \frac{\sum_{y=1}^Y \pi_y (O_y + H_y + W_y)}{\sum_{y=1}^Y \pi_y T_y}.$$

In the article, equation 15 is given by:

$$P_{yz} = \begin{cases} \prod_{i=1}^N \frac{(\lambda_i L)^{(I_{yi} - I_{zi})} e^{-\lambda_i L}}{(I_{yi} - I_{zi})!} & \text{if } I_{yi} \leq I_{zi} \quad \forall i \in \mathbf{N}, \\ 0 & \text{otherwise.} \end{cases}$$

However, the correct equation is:

$$P_{yz} = \begin{cases} \prod_{i=1}^N \frac{(\lambda_i L)^{(I_{yi} - I_{zi})} e^{-\lambda_i L}}{(I_{yi} - I_{zi})!} & \text{if } I_{yi} \geq I_{zi} \quad \forall i \in \mathbf{N}, \\ 0 & \text{otherwise.} \end{cases}$$

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In the article, equation 16 is given by:

$$P_{zx} = \begin{cases} \frac{(\Delta_{zx} - 1)!}{\prod_{i=1}^N (I_{xi} - I'_{xi})!} \prod_{i=1}^N \left(\frac{\lambda_i}{\lambda_{\mathbf{N}}} \right)^{(I_{zi} - I_{xi})} & \text{if } I_{zi} \leq I_{xi} \quad \forall i \in \mathbf{N}, \\ 0 & \text{otherwise,} \end{cases}$$

However, the correct equation is:

$$P_{zx} = \begin{cases} \frac{(\Delta_{zx} - 1)!}{\prod_{i=1}^N (I_{xi} - I'_{xi})!} \prod_{i=1}^N \left(\frac{\lambda_i}{\lambda_{\mathbf{N}}} \right)^{(I_{zi} - I_{xi})} & \text{if } I_{zi} \geq I_{xi} \quad \forall i \in \mathbf{N}, \\ 0 & \text{otherwise,} \end{cases}$$

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