

On the Frame Error Rate of Transmission Schemes on Quasi-Static Fading Channels : ERRATUM

As explained in Section V of our original paper, if the frame error rate (FER) of a transmission scheme on an Additive White Gaussian Noise channel had been measured at equally spaced and ordered signal-to-noise ratio (SNR) values γ_i , with $i = 1, 2, \dots, N$, the waterfall threshold γ_w could have been obtained from

$$\begin{aligned}\gamma_w &= \left(\frac{1}{\gamma_k - \left(\frac{\gamma_k - \gamma_{k-1}}{2}\right)} - \sum_{i=k}^N \frac{P_e^G(\gamma_i)}{\gamma_i^2} \right)^{-1} \\ &= \left(\frac{2}{\gamma_{k-1} + \gamma_k} - \sum_{i=k}^N \frac{P_e^G(\gamma_i)}{\gamma_i^2} \right)^{-1},\end{aligned}$$

where the FER is $P_e^G(\gamma_i) = 1$ for $i < k$ and $P_e^G(\gamma_i) < 1$ otherwise. Unfortunately, a factor has been left out from the above equation, which is expression (23) in our original paper. Please note that the correct expression should have read

$$\begin{aligned}\gamma_w &= \left(\frac{1}{\gamma_k - \left(\frac{\gamma_k - \gamma_{k-1}}{2}\right)} - (\gamma_k - \gamma_{k-1}) \sum_{i=k}^N \frac{P_e^G(\gamma_i)}{\gamma_i^2} \right)^{-1} \\ &= \left(\frac{2}{\gamma_{k-1} + \gamma_k} - (\gamma_k - \gamma_{k-1}) \sum_{i=k}^N \frac{P_e^G(\gamma_i)}{\gamma_i^2} \right)^{-1}.\end{aligned}$$

Thank you,

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