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$${}_P P \overset{??}{P} \overset{??}{pdf} PAM$$

$$(1) \quad \begin{array}{c} C=B\log_2(1+\gamma) \\ \gamma \quad \quad \overset{??}{CB} \\ \quad \quad \quad \overset{??}{??} \end{array}$$

$$(2) \quad \begin{array}{c} \eta_{SE}=C/B=\log_2(1+\gamma) \\ C/Bbps/Hz?? \\ bps/Hz/cellbps/Hz/m^2?? \end{array}$$

$$(3) \quad \begin{array}{c} \eta_{ASE}=C/(B\cdot S)=\log_2(1+\gamma)/S \\ \overset{?}{\mathbf{1}} \\ \overset{?}{H}= \\ \left[T_{m\times(n-m)}^{(4)}L_{m\times m}\right]_{m\times n}L \\ (u,b)^{ubvv}= \\ \overset{??}{??} \end{array}$$

$$(4) \quad \begin{array}{c} b_i=\sum_{j=1}^{n-m}h_{i,j}u_j+\sum_{j=1}^ih_{i,j+n-m}b_j \\ h_{i,j}Hij u_j u_j b_i b_i \\ \overset{??}{??} \end{array}$$

$$(5) \quad H=\left[\begin{array}{ccc} T_{m-g\times(n-m)}^{(5)} & T_{m-g\times(g)}^{(6)} & L_{(m-g)\times(m-g)} \\ T_{g\times(n-m)}^{(7)} & T_{g\times(g)}^{(8)} & T_{g\times(m-g)}^{(9)} \end{array}\right]_{m\times n}$$

$$(6) \quad \begin{array}{c} L \\ (u,b_1,b_2)^{v=}ub_1b_2b_1gb_2m- \\ gvH^T= \\ 0?? \end{array}$$

$$(6) \quad \begin{array}{c} \left\{ \begin{array}{l} T^{(5)}u^T+T^{(6)}b_1^T+Lb_2^T=0 \\ \left(-T^{(9)}L^{-1}T^{(5)}+T^{(7)}\right)u^T+\left(-T^{(9)}L^{-1}T^{(6)}+T^{(8)}\right)b_1^T=0 \end{array} \right. \\ \overline{D} \overline{E} \overline{L}^{-1} \overline{B} + \\ \overline{D} \overline{P} \end{array}$$

$$(7) \quad \begin{array}{c} \left\{ \begin{array}{l} b_1^T=-Q^{-1}\left(-T^{(9)}L^{-1}T^{(5)}+T^{(7)}\right)u^T \\ b_2^T=-L^{-1}\left(T^{(5)}u^T+T^{(6)}b_1^T\right) \end{array} \right. \end{array}$$

$$\overset{??}{\overset{??}{\overset{?}{\dot{c}}}}\overset{??}{\in}\{0,1\}dx dy l y_l??$$

$$(8) \quad \begin{array}{c} L\left(c|y\right)=\log\left(\frac{\Pr\left(c=0|y\right)}{\Pr\left(c=1|y\right)}\right) \\ ?? \end{array}$$

$$(9) \quad \begin{array}{c} L\left(c|y\right)=\log\left(\frac{\Pr\left(y|c=0\right)}{\Pr\left(y|c=1\right)}\right) \\ ?? \end{array}$$

$$(10) \quad \begin{array}{c} L\left(c|y\right)=\log\left(\frac{\prod\limits_{l=0}^{d-1}\Pr\left(y_l|c=0\right)}{\prod\limits_{l=0}^{d-1}\Pr\left(y_l|c=1\right)}\right)=\sum\limits_{l=0}^{d-1}\log\left(\frac{\Pr\left(y_l|c=0\right)}{\Pr\left(y_l|c=1\right)}\right)=\sum\limits_{l=0}^{d-1}L\left(y_l|x\right) \\ y_lL\left(c|y\right)> \\ \overset{0}{\hat{c}}= \\ \overset{0}{\hat{c}}= \\ \overset{1}{\hat{c}}= \\ \quad \quad \quad \overset{????}{????} \end{array}$$

$$L_{i\rightarrow i}=L_i+\sum L_{i'\rightarrow i}$$