

ST 506 Homework Set 12

Final Probability Expression

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$$\begin{aligned} \psi_1 p_{11} p_{12} * & \left[(1-\epsilon_1)(1-p_{21})(1-p_{22})(1-\epsilon_2)(1-p_{31})(1-p_{32}) \right. \\ & + (1-\epsilon_1)(1-p_{21})(1-p_{22})\epsilon_2 \\ & + \epsilon_1\gamma_2(1-p_{31})(1-p_{32}) \\ & \left. + \epsilon_1(1-\gamma_2) \right] \end{aligned}$$

Note: Many got close but didn't realise that unless you are in a "black" box you don't even have a chance of observation.