$\Delta_i = |r_i - \tau|$. It is risky to eliminate while estimated mean of arm i ($\hat{r_i}$) is inside Margin. Confidence interval s_i will make sure arm i is not eliminated while inside Margin. So we have to bound $P\{\hat{r_i} <= r_i - 2s_i\}$. Till that time arm i will not be accepted as good arm. For arm j we have to bound $P\{\hat{r_j} >= r_j + 2s_j\}$ since till that time j will not be rejected as bad arm.