

$$T_{AMAT} = T_{Hit} + T_{penal} \cdot P_{miss} = T_{Hit} + (P_{miss} \cdot T_{P_{miss}})$$

$$\begin{array}{l} \text{Ciclos de} \\ \text{pérdida} \\ \text{por fallo} \end{array} = NI \cdot \underbrace{P_{miss} \cdot T_{P_{miss}}}_{L.I} + NI_{\substack{LW \\ SW}} \cdot \underbrace{P_{miss} \cdot T_{P_{miss}}}_{L.D}$$

$$CPI_{efectiva} = CPI + \left(\frac{\text{Ciclos de pérdida por fallo}}{NI} \right) \quad \text{ó} \quad CPI + (P_{miss} \cdot T_{P_{miss}})$$

$$\begin{array}{l} \text{Tiempo de} \\ \text{ejecución} \\ \text{del programa} \end{array} = NI \cdot CPI_{efectiva} \cdot T_{ck}$$

