

$$\lim_{n \rightarrow \infty} \frac{\log M_1}{\sqrt{n \delta_{n,j}}} \leq \sqrt{2} \frac{(1 - \lambda^*) \mathbb{D}(P_1 || P_0) + \lambda^* \gamma \mathbb{D}(P_0 || P_1)}{\sqrt{(1 - \lambda^*) \chi_2(Q_1 || Q_0) + \lambda^* \gamma^2 \chi_2(Q_0 || Q_1)}}$$