

$$\min_{X \in \mathbb{R}^{d \times d}} \left\| \begin{pmatrix} n^2 & & & & \\ & n^2 & & & \\ & & n^2 & & \\ & & & D(X) \otimes I_n & \\ & & & & n^2 \end{pmatrix}^{-1} \times \exp \left( \begin{pmatrix} A_1 \otimes A_2 \\ \text{vec}(C) \\ \text{vec}(X) \end{pmatrix} - n^2 \text{vec}(C) \right) \right\|_2^2$$