

$$\forall_{i,j}$$

$$\frac{\partial K_{i,j}}{\partial A_{a,b}} = \begin{cases} A_{a,b}^q K^q(X_i, Y_j) & \text{if } i = a \text{ and } j = b \\ A_{i,b}^q K^q(X_i, Y_j) & \text{if } j = a \\ A_{j,b}^q K^q(X_i, Y_j) & \text{if } i = a \end{cases}$$