

$$\sum_{n=1}^N a_n y_n K(x_n, x) - \sum_{n=1}^N a_n y_n K(x_n, x_s) = p \sum_{n=1}^N \tilde{a}_n y_n K(x_n, x) - p \sum_{n=1}^N \tilde{a}_n y_n K(x_n, x_s)$$