$$e^{-(x-y)^T \Sigma (x-y)}$$

$$\downarrow$$

$$-2(x^T - y)\Sigma^{-1}(x-y) \cdot \Sigma^{-1}(x-y) \exp(\quad)$$

$$\swarrow \quad x=y !$$

$$\Sigma^{-1}(x-y) \approx \Sigma^{-1}(x-y) h_1$$

$$e^{-(x^T \Sigma^{-1} x)} \quad \approx \quad -2(x^T \Sigma^{-1} x)(\Sigma^{-1} x)$$

$$(x+h)^T \Sigma^{-1}(x+h) \Sigma^{-1}(x+h)$$

$$= h_2^T (\Sigma^{-1} x \Sigma^{-1} x) + x^T \Sigma^{-1} h_2 \Sigma^{-1} x$$

$$+ \cancel{x+h} \; x \Sigma^{-1} x \Sigma^{-1} h_2 ,$$

$$h_2^T \Sigma^{-1} h_3 h_4 \Sigma^{-1} h_4 \quad \longleftrightarrow$$

can you solve this eqn?

at