$$\frac{\log(P(X \mid M, E))}{2\log(P)} \propto M^{T} \underbrace{\sum_{i=1}^{-1} X_{i} - \underbrace{\sum_{i=1}^{-1} M_{i}}}_{2\log(P)} = \underbrace{\sum_{i=1}^{-1} X_{i} - \underbrace{\sum_{i=1}^{-1} M_{i}}}_{2\log(P)}$$

$$\frac{2\log(P)}{2m} = \underbrace{\sum_{i=1}^{-1} X_{i} - \underbrace{\sum_{i=1}^{-1} M_{i}}}_{2m}$$

 $p(x|M, \underline{\xi}) = \frac{1}{(2\pi)^{\frac{N}{2}}|\underline{\xi}|^{\frac{1}{2}}} \exp\left(-\frac{1}{2}(x-M)^{\frac{1}{2}}\underline{\xi}^{\frac{1}{2}}(x-M)\right)$