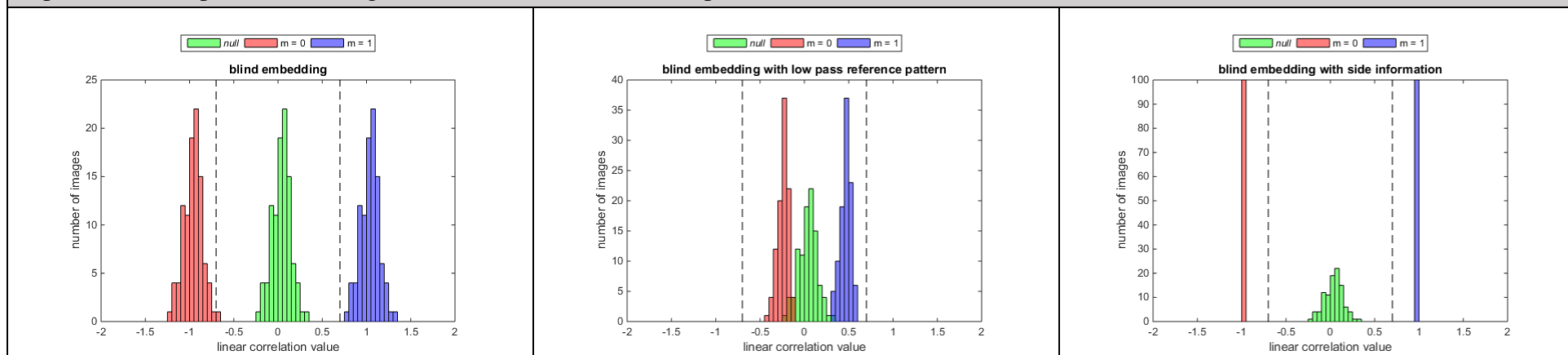
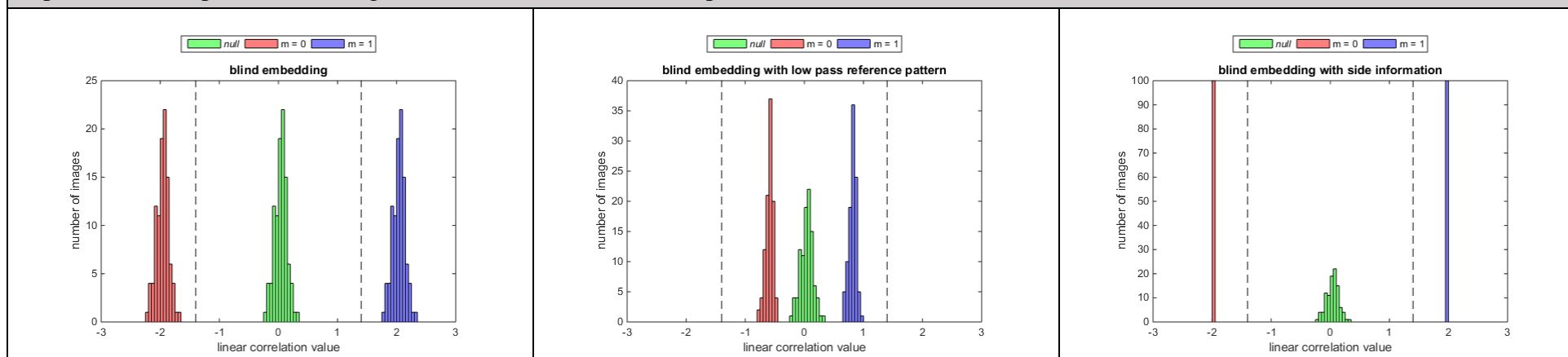


◆ blind embedding and linear correlation detection

experiment 1 a : pseudo random generated white noise reference pattern with seed 1, $\alpha = 1$



experiment 1 b : pseudo random generated white noise reference pattern with seed 1, $\alpha = 2$



① experiment 1 a v.s experiment 1 b 先設定 α ，而後調整區分隱藏訊息的閾值為 $\pm \alpha w_r \cdot w_r / N$ 。

blind embedding v.s blind embedding with side information 先設定隱藏訊息的閾值，而後調整 α 為 $(N(\tau_{lc} + \beta) - c_o \cdot w_m) / (w_m \cdot w_m)$ 。

→ α 與 linear correlation detection 的結果區間有關，兩者必須互相調整。

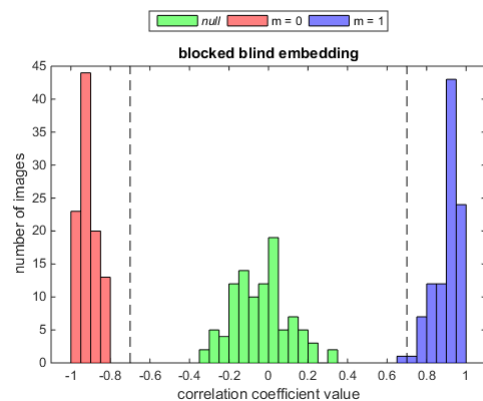
→ 依隱藏訊息的閾值調整 α ，會提高 linear correlation detection 的正確性。

② 當 reference pattern 經過 low pass filter 處理，會降低 linear correlation detection 的正確性。

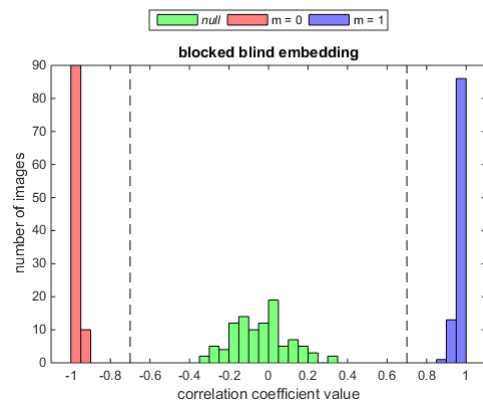
→ reference pattern 與 linear correlation detection 的正確性有關，reference pattern 必須慎選。

◆ blocked blind embedding and correlation coefficient detection

experiment 1 a : pseudo random generated white noise reference pattern with seed 1, $\alpha = 1$



experiment 1 b : pseudo random generated white noise reference pattern with seed 1, $\alpha = 2$



① correlation coefficient detection 的結果區間在 ± 1 之間。