

from (ii) & (iii) :-

if $H_1 H_2 \rightarrow 1$, then estimation of f_1 & f_2 becomes problematic. (Divide by zero error)

Incase of added noise :-

$$\begin{aligned} g_1 &= f_1 + h_1^* f_2 + n \\ g_2 &= f_2 + h_1^* f_1 + n \end{aligned}$$

noise

Taking Fourier (ix) & (x)

$$\begin{aligned} G_1 &= F_1 + H_1 F_2 + N \\ G_2 &= F_2 + H_1 F_1 + N \end{aligned}$$

From (xi) & (xii)

$$F_2 = \frac{G_2 - H_1 G_1 + H_1 N - N}{1 - H_1 H_2} \quad \text{--- (xiii)}$$

From (xiii), it is clear that it also suffers from the previously mentioned error.