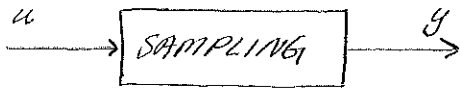


EXTRA ALIASEFFERTEN



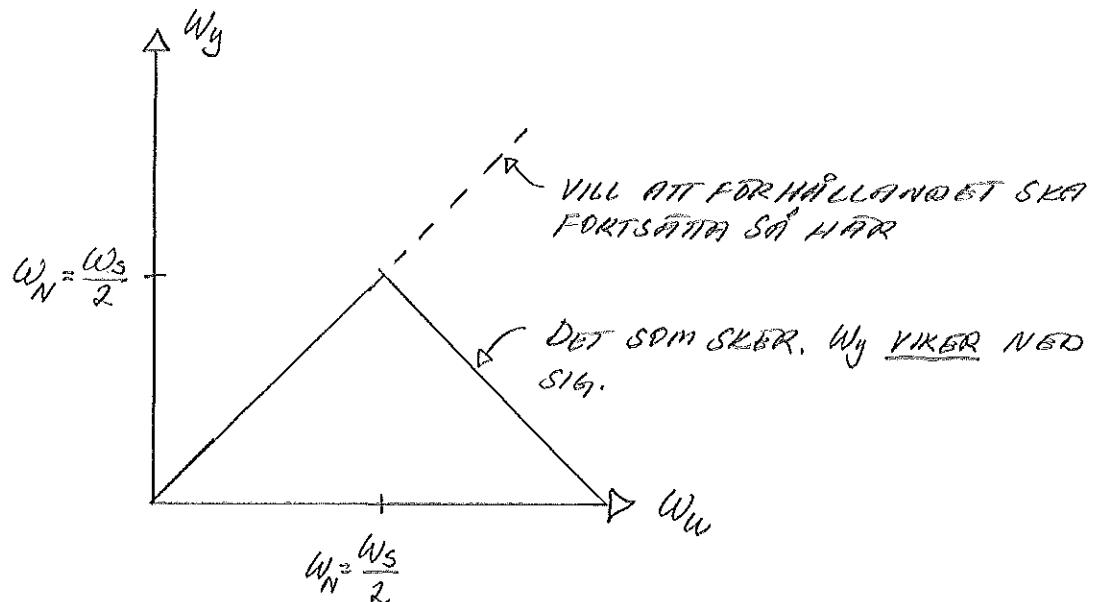
EN HÖGFREKVENT SIGNAL u MED $\omega_u > \frac{1}{2} \omega_{\text{sampling}}$

KOMMER ATT UPPFATTAS SOM EN LÅGFREKVENT SIGNAL y MED $\omega_y \leq \frac{1}{2} \omega_{\text{sampling}}$ EFTER SAMPLINGEN.

FÖLJANDE RESULTAT FINNS

$$\omega_y = \begin{cases} \omega_u - n \omega_{\text{sampling}} & \text{OM } n\omega_s \leq \omega_u \leq (n + 1/2)\omega_s \\ (n + 1)\omega_{\text{sampling}} - \omega_u & \text{OM } (n + 1/2)\omega_s \leq \omega_u \leq (n + 1)\omega_s \end{cases}$$

EXEMPEL $n=0$:



$$\omega_y = \begin{cases} \omega_u & 0 \leq \omega_u \leq \frac{1}{2} \omega_s \\ \omega_s - \omega_u & \frac{1}{2} \omega_s \leq \omega_u \leq \omega_s \end{cases}$$

ω_N : NYQUISTFREKVENSEN