

Self Evaluation Quizzes

Q 1. Why do we need scale factor $f(s_0)$ while reconstructing from CWT?

Ans. The freedom to choose the scale factor $f(s_0)$ makes the integral in equation 20 independent of the frequency and hence is very important in the process of the reconstruction.

Q 2. What is the constraint on the window function for reconstruction from STFT?

Ans. We can see in equation-10 of lecture script, while reconstructing from STFT we get $\|v\|^2 \times x(t)$. Hence, we will get perfect reconstruction only if L_2 norm of window function $v(t)$ is finite i.e. $v(t) \in L_2(\mathbb{R})$.