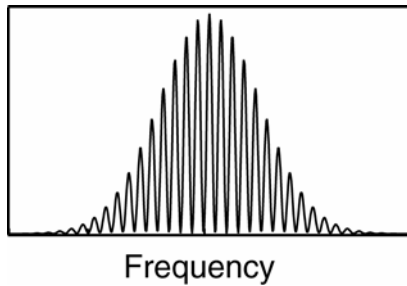
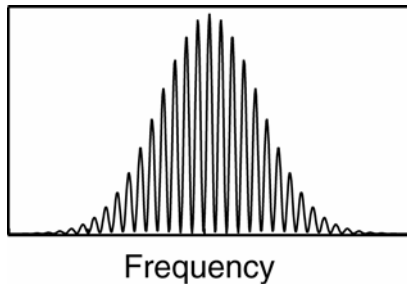


# Fourier Transform Spectral Interferometry (FTSI)



$$S(\omega) = \left| \tilde{E}_1(\omega) \right|^2 + \left| \tilde{E}_2(\omega) \right|^2 + 2 \left| \tilde{E}_1(\omega) \right| \left| \tilde{E}_2(\omega) \right|^* \cos(\phi_t(\omega) + \omega\tau)$$

# Fourier Transform Spectral Interferometry (FTSI)

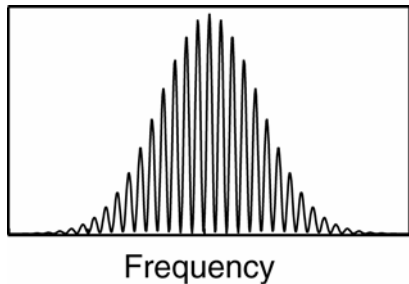


$$S(\omega) = \left| \tilde{E}_1(\omega) \right|^2 + \left| \tilde{E}_2(\omega) \right|^2 + 2 \left| \tilde{E}_1(\omega) \right| \left| \tilde{E}_2(\omega) \right|^* \cos(\phi_t(\omega) + \omega\tau)$$

$$S(\omega) = A_1(\omega) + \left| \tilde{E}_1(\omega) \right| \left| \tilde{E}_2(\omega) \right|^* e^{i\phi_t(\omega)} e^{i\omega\tau} + \left| \tilde{E}_1(\omega) \right|^* \left| \tilde{E}_2(\omega) \right| e^{-i\phi_t(\omega)} e^{-i\omega\tau}$$

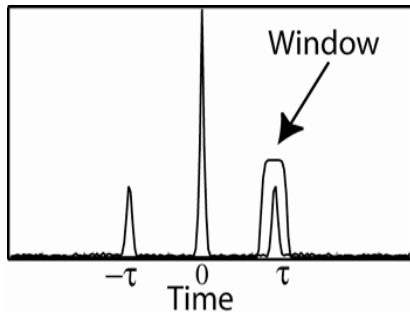
$$S(\omega) = A_{DC}(\omega) + A_{AC}(\omega) e^{i\omega\tau} + A_{AC}^*(\omega) e^{-i\omega\tau}$$

# Fourier Transform Spectral Interferometry (FTSI)



$$S(\omega) = |\tilde{E}_1(\omega)|^2 + |\tilde{E}_2(\omega)|^2 + 2|\tilde{E}_1(\omega)||\tilde{E}_2(\omega)|^* \cos(\phi_t(\omega) + \omega\tau)$$

Fourier Transform

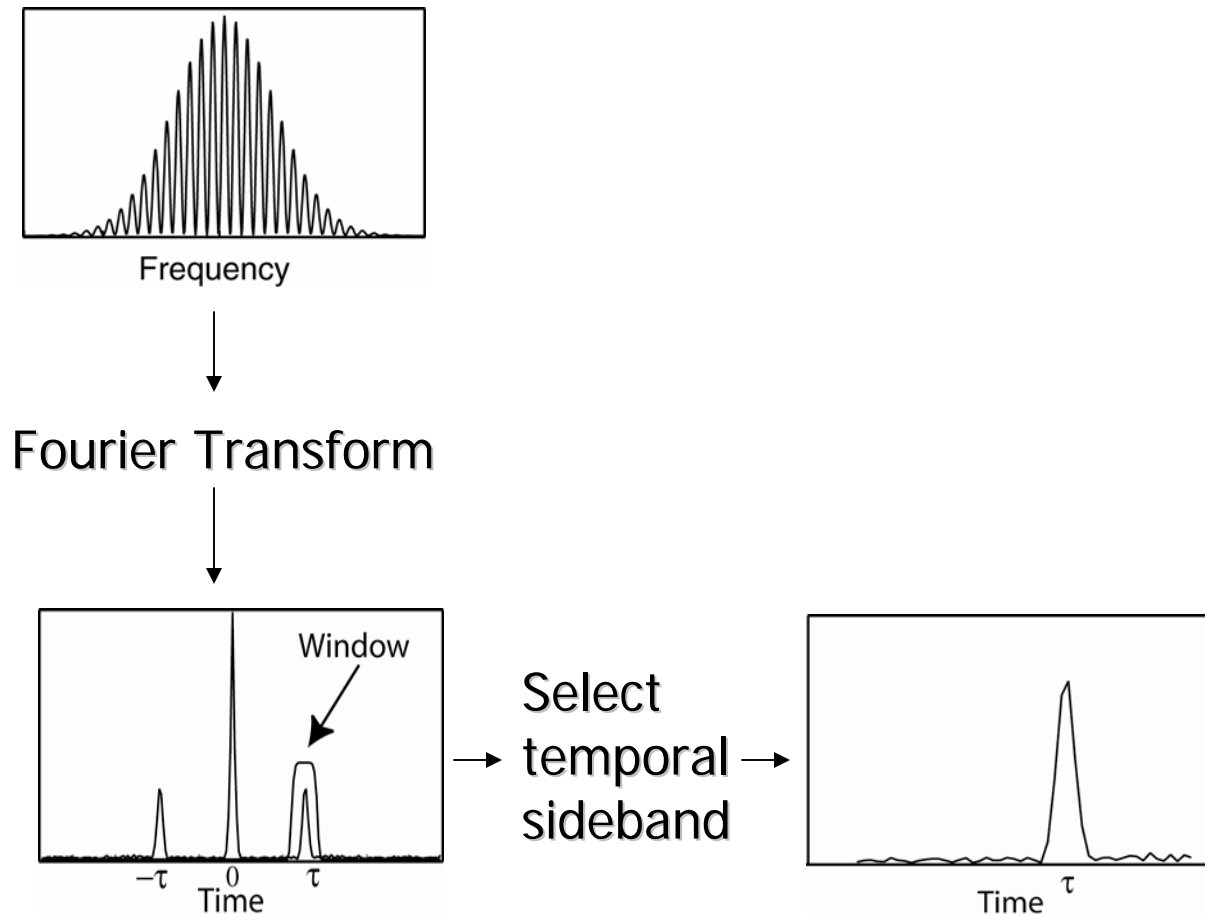


$$S(\omega) = A_1(\omega) + |\tilde{E}_1(\omega)||\tilde{E}_2(\omega)|^* e^{i\phi_t(\omega)} e^{i\omega\tau} + |\tilde{E}_1(\omega)|^* |\tilde{E}_2(\omega)| e^{-i\phi_t(\omega)} e^{-i\omega\tau}$$

$$S(\omega) = A_{DC}(\omega) + A_{AC}(\omega) e^{i\omega\tau} + A_{AC}^*(\omega) e^{-i\omega\tau}$$

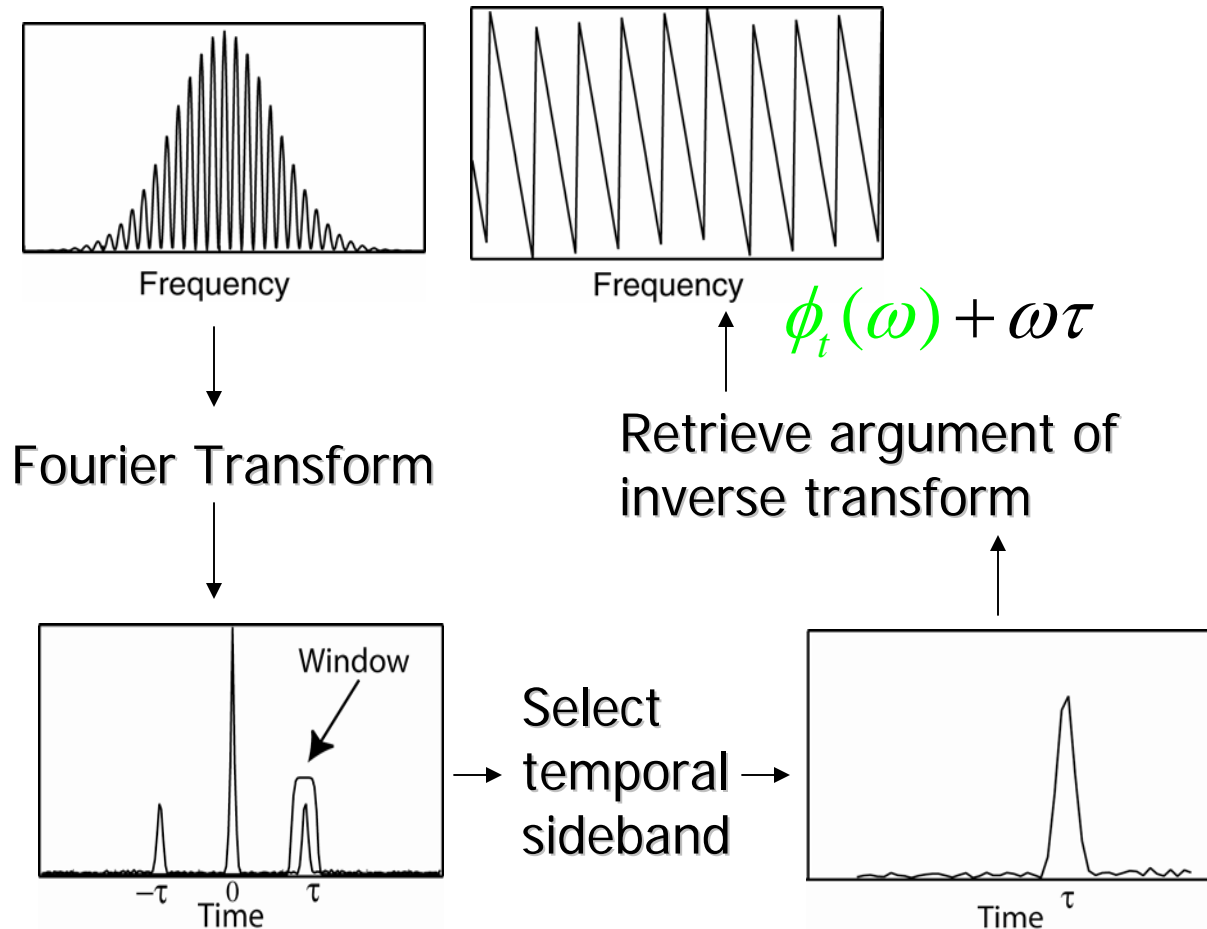
$$\tilde{S}(t) = \tilde{A}_{DC}(t) + \tilde{A}_{AC}(t - \tau) + \tilde{A}_{AC}^*(t + \tau)$$

# Fourier Transform Spectral Interferometry (FTSI)



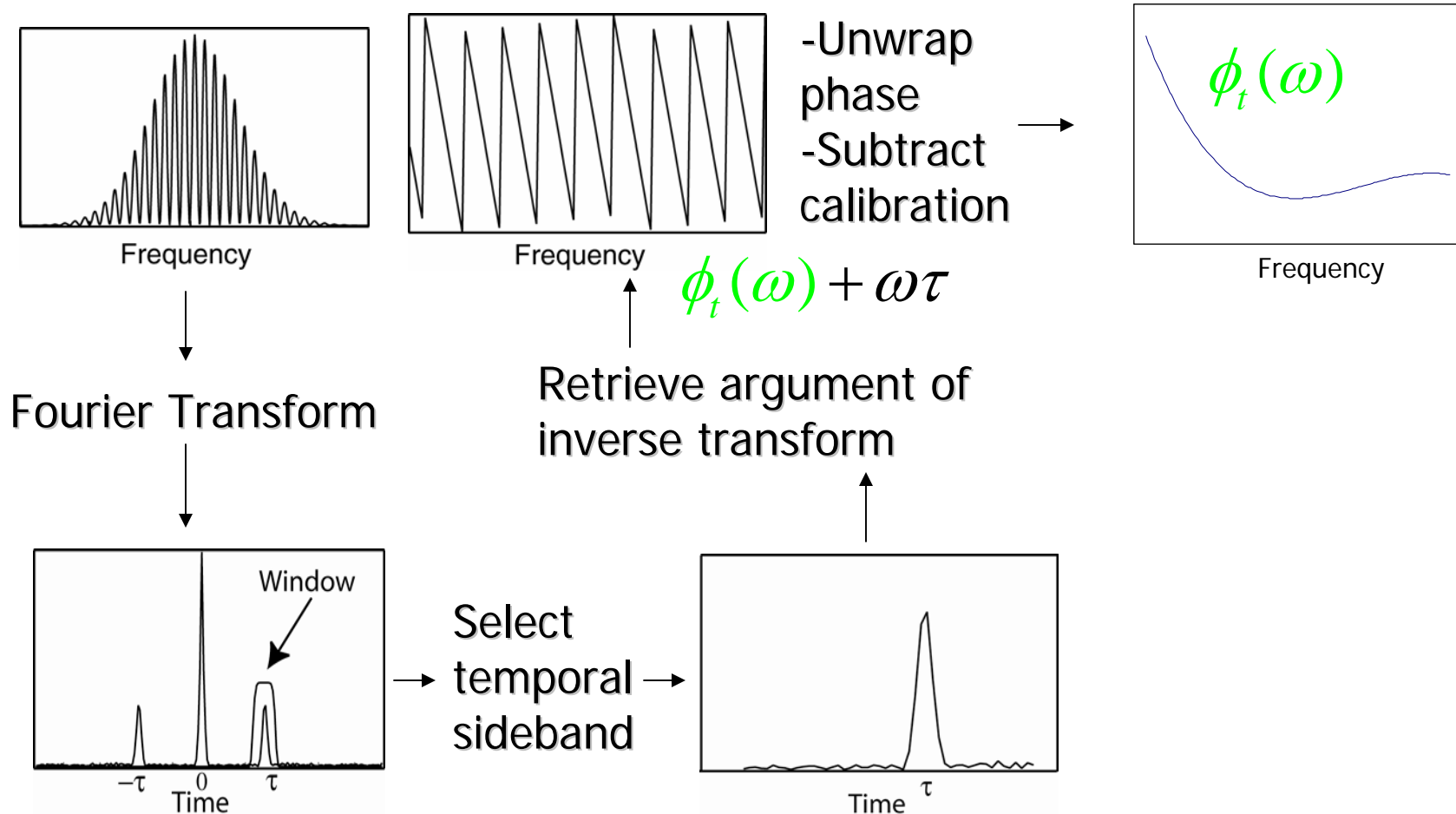
$$\tilde{S}'(t) = \tilde{A}_{AC}(t - \tau)$$

# Fourier Transform Spectral Interferometry (FTSI)



$$\tilde{S}'(t) = \tilde{A}_{AC}(t - \tau)$$

# Fourier Transform Spectral Interferometry (FTSI)



$$\tilde{S}'(t) = \tilde{A}_{AC}(t - \tau)$$

