

L6BANDS

Lorentian Line shape

Frequency interval $m := 11$

$$\omega_0 := \frac{49}{(2^m - 1)} \quad \omega := \frac{1}{(2^m - 1)}, \frac{2}{(2^m - 1)} .. 1$$

To make a graph the life time is chosen such that the Lorentzian line shape can be demonstrated.

$\tau := 1000$

$$gl(\omega) := 2 \frac{\frac{1}{(2 \cdot \tau)}}{\frac{1}{(2 \cdot \tau)^2} + (\omega - \omega_0)^2} \quad Q := \tau \cdot \omega_0$$

$Q = 23.937$

