

## 对称性举例

## 例如:

$$f(t) = \frac{1}{1+t^2} \longleftrightarrow F(\mathbf{j}\omega) = ?$$

解: 
$$e^{-\alpha|t|} \longleftrightarrow \frac{2\alpha}{\alpha^2 + \omega^2}$$

若
$$\alpha=1, e^{-|t|} \longleftrightarrow \frac{2}{1+\omega^2}$$

$$\therefore \frac{2}{1+t^2} \longleftrightarrow 2\pi e^{-|\omega|} \qquad \frac{1}{1+t^2} \longleftrightarrow \pi e^{-|\omega|}$$