基本数学知识
- Sinusoidal functions
- Complex numbers
- Euler's formula
- Complex sinusoids
- Scalar product of sequences
- Even and odd functions
- Convolution

一. Sinusoidal functions - 正弦函数.

$$x[n] = A\cos(wnT + \varphi) = A\cos(2\pi f nT + \varphi)$$

A: amplitude 振幅

w: angular frequency in radians/seconds.

角频率, 弧度制). 单位为 radians/seconds.

$f = w/2\pi$: frequency in Hertz (cycles/seconds)

频率. 单位为 Hz. 表示 cycles/seconds.

φ: initial phase in radians. 初始相位. 弧度制)

n. time index 采样次数

$T = 1/f_s$: sampling period in seconds ($t = nT = n/f_s$)

采样周期. 多久采样一次