More signals

- Note: in your function, A should be replaced by SNR (see **crcbgenqcsig.m**)
- Sinusoidal signal
  - $s(t) = A\sin(2\pi f_0 t + \phi_0)$
  - Parameters: A, f_0, ϕ_0
- Linear chirp signal
  - $s(t) = A\sin(2\pi(f_0 t + f_1 t^2) + \phi_0)$
  - Parameters: A, f_0, f_1, ϕ_0
- Sine-Gaussian signal
  - $s(t) = A\exp\left(-\frac{(t-t_0)^2}{2\sigma^2}\right)\sin(2\pi f_0 t + \phi_0)$
  - Parameters: $A, t_0, \sigma, f_0, \phi_0$

More signals

- Frequency modulated (FM) sinusoid
  - $s(t) = A\sin(2\pi f_0 t + b\cos(2\pi f_1 t))$
  - Parameters: $A, b, f_0 \gg f_1, f_1$
- Amplitude modulated (AM) sinusoid
  - $s(t) = A\cos(2\pi f_1 t) \times \sin(2\pi f_0\, t + \phi_0)$
  - Parameters: $A, f_0 \gg f_1, f_1, \phi_0$
- AM-FM sinusoid
  - $s(t) = A\cos(2\pi f_2 t) \times \sin(2\pi f_0 t + b\cos(2\pi f_1 t))$
  - Parameters: $A, b, f_0 \gg f_1, f_2, f_1 > f_2$

More signals

- Linear transient chirp
  - $s(t) = \begin{cases} 0; \ \ t \notin [t_a, t_a + L] \\ A\sin(2\pi(f_0(t - t_a) + f_1(t - t_a)^2) + \phi_0) \end{cases}$
  - Parameters: $A, t_a, f_0, f_1, \phi_0, L$
- Exponentially damped sinusoid
  - $s(t) = \begin{cases} 0; \ \ t \notin [t_a, t_a + L] \\ A\ \mathrm{e}^{-(t-t_a)/\tau}\sin(2\pi f_0 t + \phi_0) \end{cases}$
  - Parameters: $A, t_a, f_0, \tau, \phi_0, L$
- Step FM
  - $s(t) = \begin{cases} A\sin(2\pi f_0 t)\,; \ \ t \le t_a \\ A\sin(2\pi f_1(t - t_a) + 2\pi f_0 t_a); t > t_a \end{cases}$
  - Parameters: A, t_a, f_0, f_1