Polynomial Spectra

Here's an idea.

Why not model signals of interest with a non-constant, a-periodic sinusoidal waveform?

x^4+3*x^3+8x^2+1 = 0

`y = polyval(p,x)` evaluates the polynomial `p` at each point in `x`. The argument `p` is a vector of length `n+1` whose elements are the coefficients (in descending powers) of an `n`th-degree polynomial:

```
x=-1e6:100000:1e6; % the indepedent variable is -1e6 to 1e6
                   % with a step size of 1000

p = [1 3 8 1] % polynomial coefficients are listed
```

```
p = 1×4
     1     3     8     1
```

```
plot(x,polyval(p,x)) % we plot the polynomial vs. input
grid on % plot has grid lines
```