

Tune-Up Tuesday #11 for November 28, 2017

Continuous-time frequency response for an LTI system.
Homework problem 8.1(f).

(f) Plot the magnitude and phase of the continuous-time frequency response

$$H(j\omega) = 1 - e^{-2j\omega}$$

for $-10 \text{ rad/s} < \omega < 10 \text{ rad/s}$.

What is the frequency selectivity— lowpass, highpass, bandpass, bandstop, allpass or notch?

What is the impulse response of the system?

Hint: The system is a continuous-time tapped delay line. It's also known as a comb filter. https://en.wikipedia.org/wiki/Comb_filter