Key Concepts from Last Time

- Time & frequency scaling: Compressing in time stretches the spectrum by the same amount.
- Parseval’s Theorem: The Energy/power of the time domain signal is equal to the energy/power of the frequency domain transform!
- For the DTFS and CTFT, the transform of a signal is often nearly the same as the inverse transform:
  \[ \delta(t) \iff 1 \iff \frac{FT}{2\pi} \delta(\omega) \]
- How to visually identify time-domain properties from the transform and vice versa.
- Eigenfunctions of LTI systems: complex sinusoids are, real sinusoids are not.

Lecture Overview

Last Time

- Finish Fourier properties
  – Time & frequency scaling
  – Parseval’s theorem
  – Duality
- Exam 2 prep — review of last year’s exam

This Time

- DT Filters
- Begin sampling?

Miscellaneous

- Homework 5 returned
- Homework 7 will be assigned on Monday
- My office hours today are cancelled
- Exam 2 will be returned on Monday