Introduction to Signals and Systems, Part II: Lecture Summary

In this lecture, we continued our qualitative discussion of the *frequency representation* of time-varying signals. We first showed how the frequency-domain representation that we will learn in this course does not indicate at what time particular frequency components occur in a signal. (See *Mathematica* notebook, sections "Time domain $\Leftrightarrow$ Frequency domain: time-varying example..." for an illustration of this.) Next we looked at some more case studies and applications of the frequency representation of signals. In the companion *Mathematica* notebook, we looked at the following three examples: (1) filtering of a noisy sine wave, (2) filtering of a speech signal and (3) amplitude modulation of a signal.