

# 6.003: Signals and Systems

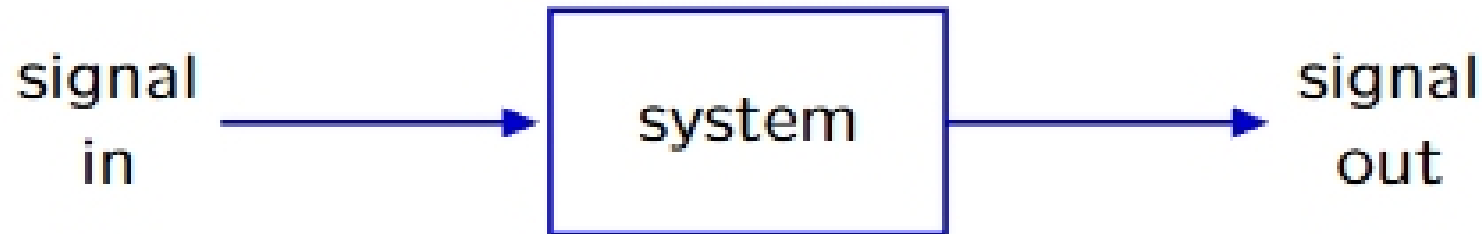
## Fourier Series

*November 3, 2009*

# Fourier Representations

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Representations based on sinusoids.



To date, we have focused primarily on **time-domain** techniques, especially with transient signals (e.g., impulse response).

The primary focus for the next few weeks will be **frequency-domain** techniques (e.g., frequency response) which concern eternal signals.

# Fourier Series

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Today: Fourier series represent **signals** in terms of sinusoids.

This new representation for signals leads to a new representation for systems as **filters**.