Lecture 9 – 09/18/2015

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- Singularity Functions
    - Signals are in essence defined in terms of how they behave under convolution with other signals

- The Unit Impulse as an Idealized Short Pulse
    - Equations 2.134 and 2.135
    - Signals that "behave like an impulse"
    - Example 2.16 and Figures 2.34 and 2.35

- Defining the Unit Impulse through Convolution
    - We should think of a unit impulse in terms of how an LTI system responds to it
    - Operational definition – Eq 2.138 and Eq. 2.139

- Unit Doublets and Other Singularity Functions
    - Operational definition of the unit doublet – Eq. 2.144
    - Kth derivative of the unit impulse
    - Each of the singularity functions can be informally related to short pulses
    - Successive integrals of the unit impulse
    - Unit ramp function
    - Higher order integrals