Lecture 3w: Device Models II (Bipolar & MOS)

## Lecture 3: Device Models II (bipolar & MOS)

- · Announcements:
- HW#1 is online
- Discussion sections start this week
  - ♦ Discussion Section 102 Time and Location
  - ⇔ Th 4-5 p.m., 293 Cory
  - This is also now up on the official online schedule of classes
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- · Lecture Topics:
  - ♦ Review (fast)
  - **Bipolar Junction Transistor Modeling** 
    - -Basic Structure & Physics
    - -Large Signal Models
    - -DC Operating Point
    - -Small Signal Models
    - -Frequency Shaping Elements
    - -Layout
    - -Unity Gain Frequency
  - **MOS** Transistor Modeling
    - -Basic Structure & Physics
    - -Large Signal Models
    - -Threshold Voltage
    - -Small Signal Models
    - -Frequency Shaping Elements
    - -Layout and Inclusion of Parasitics
- <u>Last Time</u>: Reviewing BJT's and DC biasing using the handout
- · Continue with this ...