

# Physics 202, Lecture 6

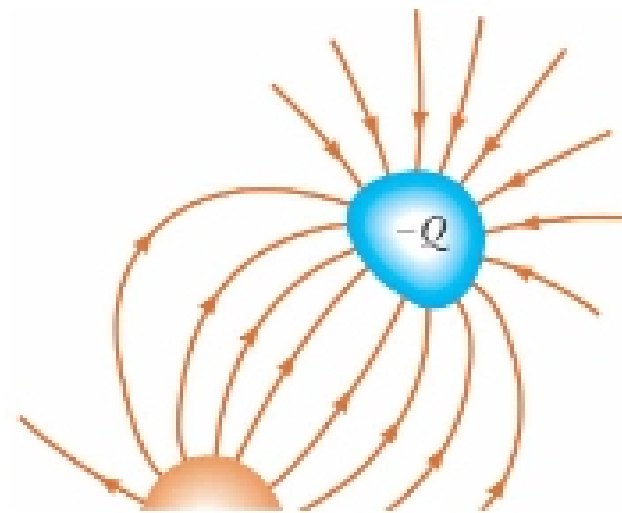
## Today's Topics

- **Capacitance**
  - Introducing Capacitance
  - Calculating capacitance
  - Combinations of capacitors
    - Series and parallel

# Capacitance

**Capacitor:** two (spatially separated) conductors, charged to +Q and -Q, with constant potential difference  $\Delta V$

stores electrical energy (by storing charge)

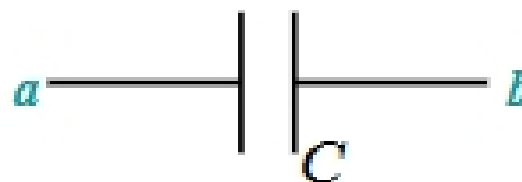


**Capacitance:**

$$C \equiv \frac{Q}{\Delta V}$$



Our first example  
of a circuit element:



Units: Farad (F)  
 $1 \text{ F} = 1 \text{ C/V}$

# Capacitors

