# Intermediate Electricity and Magnetism

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# What will we study today?

Review what we studied, and push forward
with magnetostatics!!

# Remarks

I will be travelling occasionally.

So, do we delay or reschedule?

# Remarks

We will need to modify the starting time..

# Remarks

Did you get a chance to read the homework problems?

[if needed, we can set up a problem solving session]

# Magnetostatics

- The force due to a magnetic field: similar yet different than that due to an electric field
- Is there a law like Coulomb's law for magnetism? (Biot-Savart Law)
- What are the divergence and curl of B [note: B is not the magnetic field, but related to it. B: Magnetic Induction, or Magnetic Flux Density]
- What is the 'potential' relevant to magnetic fields?

Last lecture..

# Magnetostatics

- Definition of J, and the Continuity Equation.
- Curl of B?
- What about the magnetic charge?
- Electric ‘poles’..
- Magnetic dipole moments:
    - of currents circulating in rings
    - in general..
- The force on a current due to the magnetic induction
- The torque on a magnetic momentum due to the magnetic induction