## September 21, 2020 MSE 2101 topics

- The source of magnetic field revisited
  - electrically conducting fluid/gas
  - convection in such a layer
  - moderately rapid rotation
- Average temperature on a planet surface distance and ... ?
- Greenhouse effect: the basic idea
  - The sources: vibrations, rotations, fluorescence
  - ∘ Greenhouse gases: CO<sub>2</sub>, H<sub>2</sub>O, CH<sub>4</sub>
  - CO<sub>2</sub> on Earth vs. Venus:
    - 1:200,000 in the atmosphere
    - 170,000:1 in the rocks
  - The carbon dioxide cycle: rainfall → erosion → deposits → subduction → melting → outgassing → dissolving