

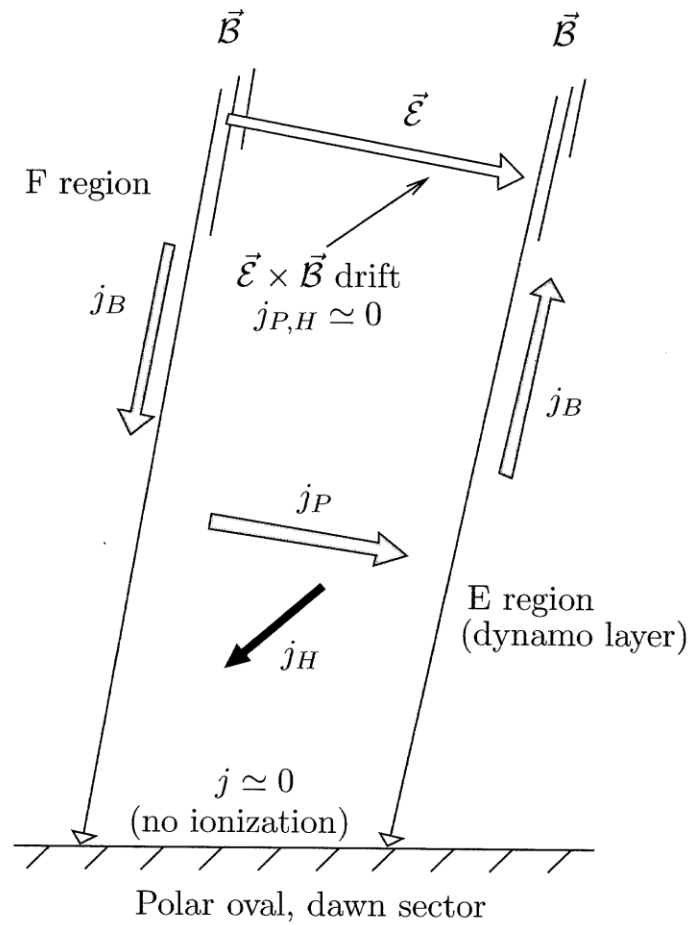
# Week 44

## Lecture 20:

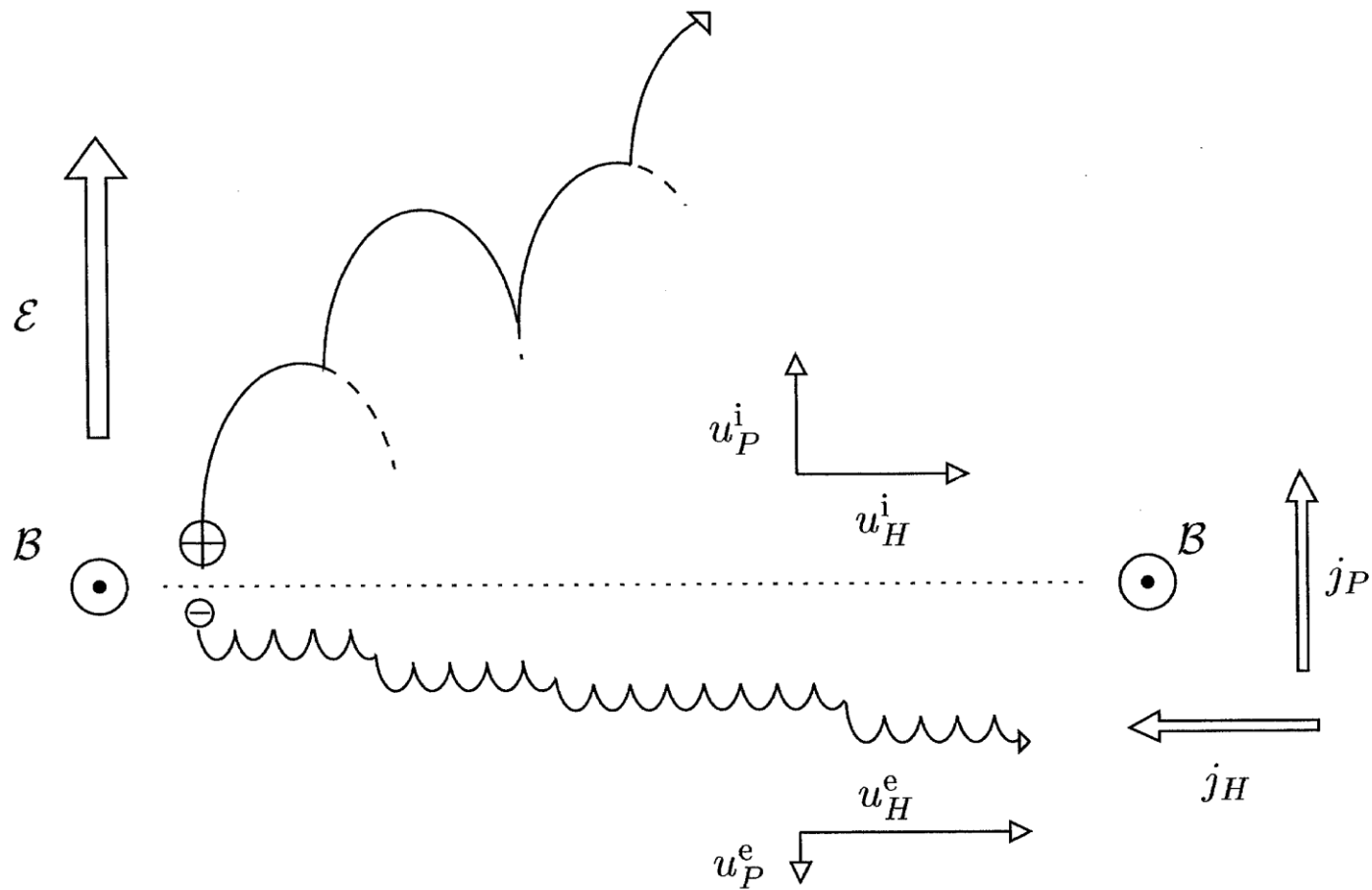
- Ohm's law
- Electric conductivity
- Resistivity
- Ionospheric conductivity
- Pedersen, Hall and Birkeland current

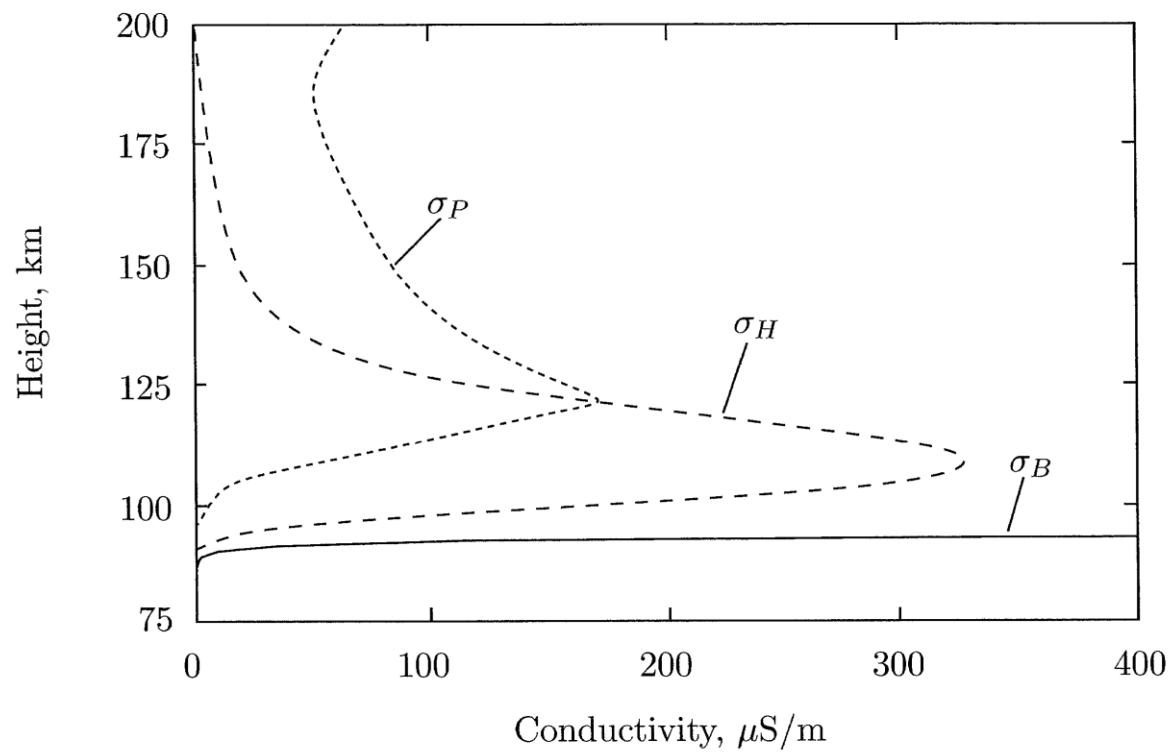
## Lecture 21:

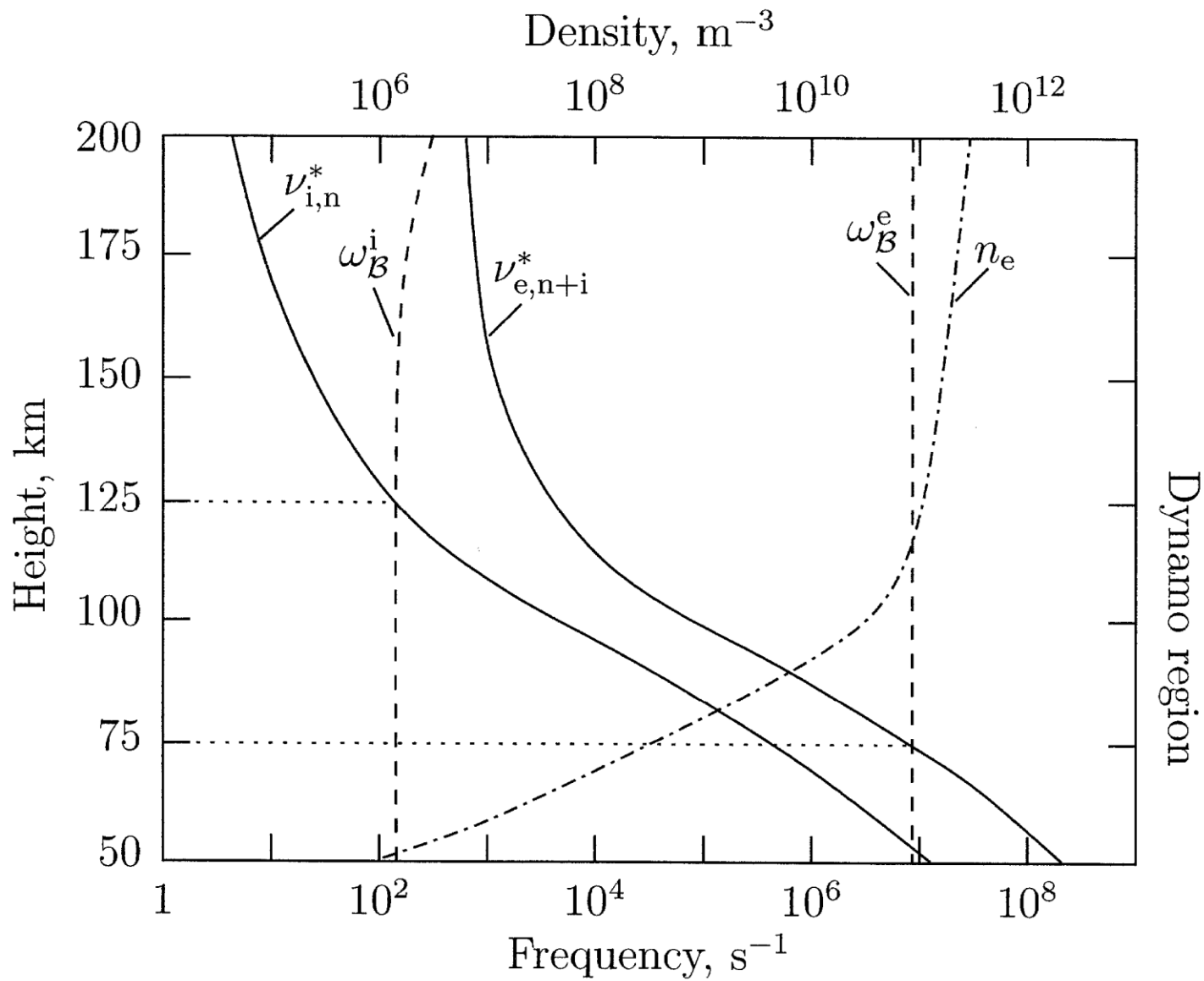
- Mobility coefficients
- Conductivity tensor/3x3 matrix
- $v_e$  and  $v_i$  rotating with altitude

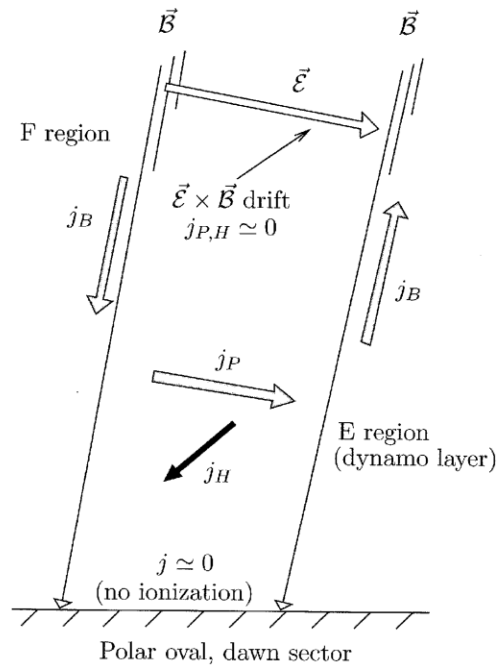


**Fig. 7.9.** Height distribution of ionospheric currents.  $j_B$ ,  $j_P$  and  $j_H$  denote the Birkeland, Pedersen and Hall current densities, respectively.









**Fig. 7.9.** Height distribution of ionospheric currents.  $j_B$ ,  $j_P$  and  $j_H$  denote the Birkeland, Pedersen and Hall current densities, respectively.

