



Magnetospheric convection

- Plasma near Earth (L ≤ 4) is known to corotate;
- Plasma in the more distant magnetosphere is also known to have a convection cycle due to the influence of the solar wind;
- The overall equatorial convection pattern is a combination of these two effects;
- But how does the solar wind impose its influence (recall frozenout conditions)?

Viscous interactions?



- Viscous processes at the MP could drive plasma tailward on the flanks, with the return flow in the centre of the tail;
- However, this is observed to create only weak coupling between the SW and the magnetosphere;
- Magnetic reconnection processes are much more important.