Cluster at multi-scales/multi-orientation: tail

2005 summer

- Phase change between C3 and C4 (0.1 kg fuel)
- Large scale along and across neutral sheet
- Small scale in Z
Cluster multi-scales/multi-orientation: magnetopause/bow shock

- Phase change of C2 and C1 => triangle // bow shock, magnetopause
- Large scale along and across bow shock and magnetopause
- Small scale along normal

2006-2007
Cluster new regions: subsolar point and auroral acceleration

Magnetopause: Subsolar point

Auroral zone: Acceleration region
Cluster at new region: current disruption

- Crossing of tail at 8-10 Earth radii
- Current disruption: key process for substorms