

POLAR SATELLITE DATA

Mozer, F.S., S.D. Bale, T.D. Phan, and J.A. Osborne, Observations of electron diffusion regions at the subsolar magnetopause, *Phys. Rev. Lett.*, **91**, 245002, (2003)

HUNDREDS OF EVENTS ANALYZED TO FIND:

- $E_{\parallel}/E_{\text{perp}}$ 0.1-1. $\langle 0.3 \rangle$
- E_{perp} $\langle 38 \rangle$ mV/m
- Scale size $\sim c/\omega_{pe}$, but timing not accurate enough to be more precise
- $\mathbf{j} \cdot \mathbf{E}/n \sim 100$ keV per particle per second in one case.
- Found in current filaments having large density changes
- low density and large magnetic fields $\langle B \rangle = 28$ nT