

Total Radiation Belt Electron Content (TRBEC)

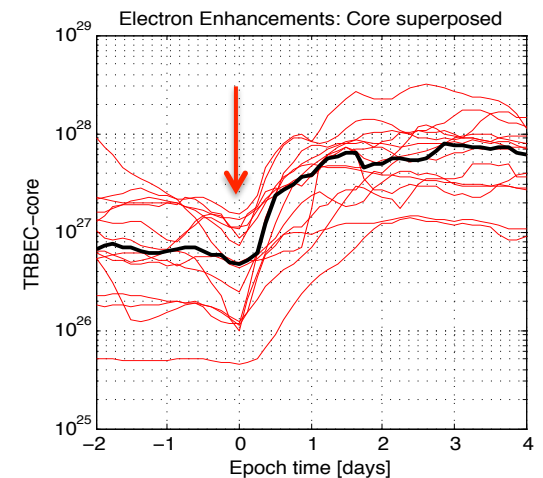
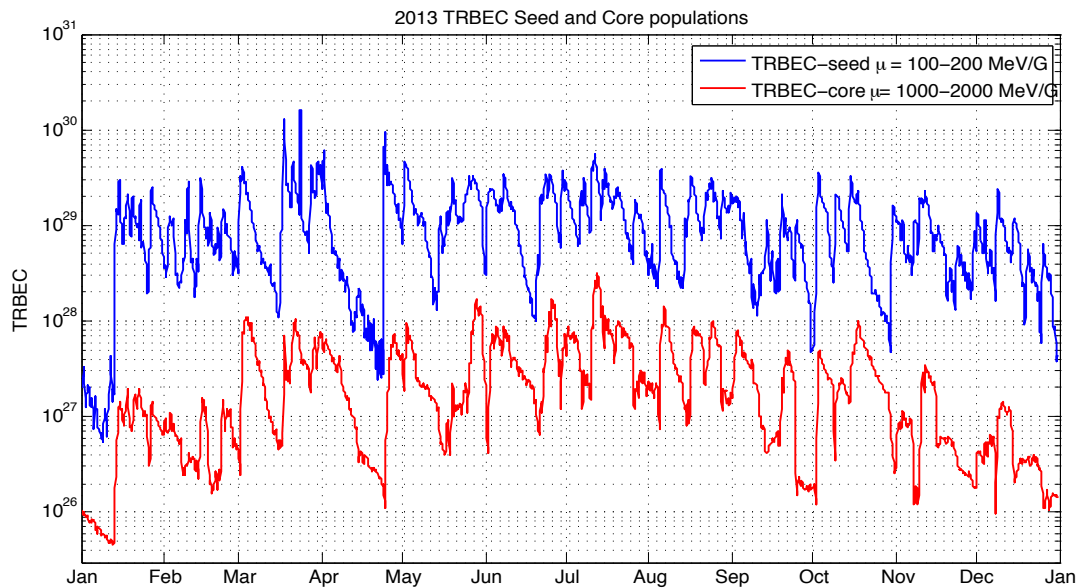
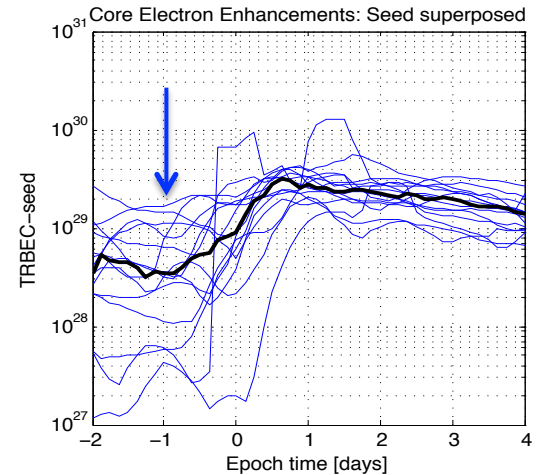
Chia-Lin Huang, Harlan Spence, Alex Boyd, Andrew Jordan

University of New Hampshire

- Improvement from previous studies by SAMPEX and Polar
- Calculation method (extrapolation in K and L* space)

$$dN = (2\pi)^3 \bar{f}(\mu, K, L^*) \frac{\partial(J_1, J_2, J_3)}{\partial(\mu, K, L^*)} d\mu dK dL^*$$

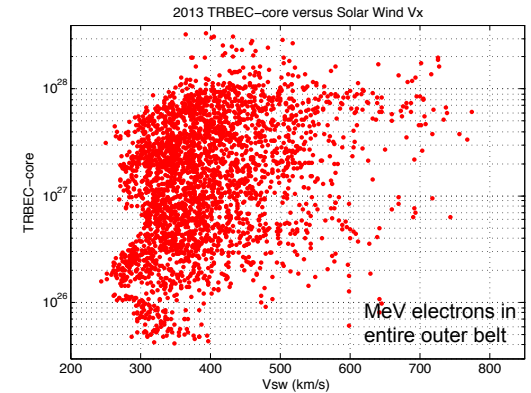
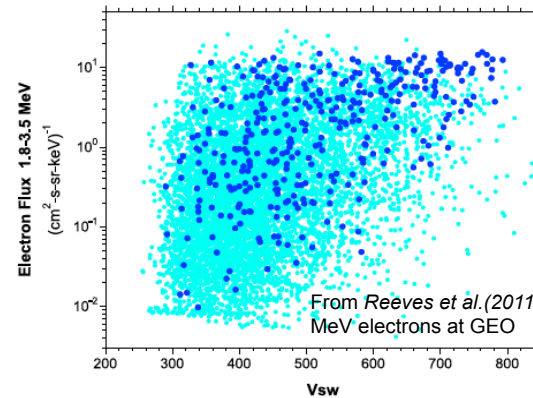
- **Seed** and **core** populations
- Acceleration timescales



Total Radiation Belt Electron Content (TRBEC)

– Solar Wind Drivers

- Triangle distribution in flux/TRBEC versus solar wind velocity plot
- Characterize external and internal conditions needed to trigger electron enhancements



2013 TRBEC Core Populations and Solar Wind Drivers

