

Long-term Longitudinal Trends

- Long-term (>10 days) variations with System III longitude are relatively minor.
- The scatter in data points is greater than any variations
- However, on average:
 - N_e is 5% greater at $\lambda_{\text{III}} = 160^\circ$
 - T_e is 5% lower at $\lambda_{\text{III}} = 170^\circ$
- Anticorrelation of density and temperature predicted by torus chemistry model
 - As N_e increases, the torus radiates more efficiently and cools