

# Conclusions

- Significant longitudinal variations in plasma composition and temperature exist in the torus
- Phase of longitudinal variations is not constant
- Long-term longitudinal variations of ansa power and electron temperature are minor (5%)
- It is dangerous to characterize the torus based on observations made over only a few days or a narrow range of longitudes
- Neutral cloud model successfully predicts timescales for torus events
- Increasing hot electrons in the short term (few hours), increases emissions, but does not change composition
- Long term changes in hot electrons (few days) causes compositional change in ionization state of torus plasma i.e. S II  $\rightarrow$  S IV