

Simple fit to Longitudinal Variations

- Fit a generalized cosine function to ion mixing ratios within sliding 50-hour window i.e. $(t-25^h < t < t+25^h)$
- Assume System III period of 9.925 hours.
- Although there is some scatter in the data, the fit matches the data rather well
- Dawn and dusk ansa have very similar amplitudes and offsets but are offset by 180°
- Results insensitive to size of sliding window