

Linear Fit to Peak Longitude Drift

- Drift in longitude nearly linear with time
- Oxygen deviates the most from linearity
- Average slope of $12.2^\circ/\text{day}$
- This can be thought of as a beat frequency between the System III rotation period and a period slightly slower than the System III rotation period.
- The average S ion subcorotation period is 10.066 hours, or 1.4% longer than the System III period of 9.925 hours.