

3 Week 03

3.1 Key concepts

- Typical values of v and T in LEO

3.2 Important concepts

- Link between solar activity and atmospheric density
- Definition of LEO, SSO, MEO, GTO, GEO, GSO
- Satellite ground track
- Orbit decay
- Ballistic coefficients
- Nodal regression and SSO condition
- Sun-synchronous orbit

3.3 Relevant concepts

- Sun activity cycle
- Space weather, incl. their impacts (e.g. auroras)
- Protected regions and graveyard orbit
- Effect of climate change on the atmosphere
- Perturbations by other massive bodies
- Lagrange points

3.4 Advanced concepts

- Indicators of space weather
- Molniya orbits
- Beyond GEO
- Perturbations by radiation pressure