



Formation Flying control using Relative Orbital Elements (ROE)

Description

ROE present several advantages over conventional rectilinear coordinates for modeling relative motion of satellites which can be exploited by using the linear models of ROE for control with higher accuracy.

Tasks:

- Study and design relative orbits using ROE
- Build state observers for estimating ROE
- Evaluation of linear control schemes for ROE control
- Simulate and verify design concept for different formation flying acquisition and maintenance scenarios

Recommended background: Control Engineering, Matlab

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