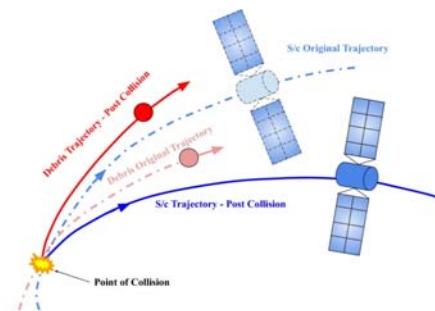


Bachelor Thesis

Space Debris Mitigation and Analysis of Collision Avoidance Algorithms

Space debris in Low Earth Orbit presents a growing hazard to active satellites and human spaceflight. With the increasing density of orbital objects, the demand for advanced systems capable of monitoring debris and forecasting collisions has become critical. Conventional tracking methods are struggling to keep pace with the sheer number and speed of these objects. In response, machine learning has emerged as a powerful tool—offering improved precision in debris detection, more reliable collision prediction, and greater automation in executing avoidance maneuvers.



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Your Tasks

- Review of research literature on space debris and its mitigation strategies
- Analysis and comparison of the current space debris standards
- Review of state-of-the-art tracking methods and data
- Analysis of machine learning algorithms to improve tracking, prediction and avoidance of space debris

Your Profile

- Interest in space activities
- Willingness to actively engage in research work
- Critical and analytical thinking

Contact

Manuela Wenger
manuela.wenger@tugraz.at