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Modern Day Space Elevators Entering Development (3)

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THE STUDY OF DIRECT, PLANETARY INSERTION ORBITS FROM SPACE ELEVATORS

Abstract

Space elevators have the potential to launch thousands of interplanetary missions within the next 5 decades. The extensive amount of opportunities to explore the solar system allows for a large range of scientific experimentation along with increased interplanetary colonization opportunities. This project has studied the possible orbits from Earth to the other planets of the solar system without the use of a midcourse correction maneuver. There has been limited research published about these potential transfers so they have also been tested in a high-fidelity professional-grade orbital simulator in order to be validated.