عنوان مقاله:

DOF Simulation of Launch Vehicle Dynamics for Investigation of Belts Position Effects on Dynamics-6

محل انتشار:

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خلاصه مقاله:

In this paper 6-DOF simulation of a launch vehicle motion on the launcher with some belts around it ،is provided and the effects of mid belt position of launch vehicle with respect to the center of mass on the vehicle dynamics is investigated. Here, the dynamic equations of rigid body with variable mass are used which are included translational and attitude equations, three location equations, three euler angles differential equations and finally two kinematic constraints that are used to achieve unknown supporting forces. Here monitoring free distance between vehicle and launcher is a main objective.The equations are solved for a sample vehicle with three belt using fourth-order Runge-Kutta Method.

کلمات کلیدی:

Launch Vehicle, Tip-off, Free distance

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