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Ehsan Taheri* (etaheri@auburn.edu), 211 Aerospace Engineering Bldg, , Auburn Univ,
Auburn, AL 36849. *Application of Control Regularization Techniques for Generating Spacecraft
Trajectories.*

In this paper, application of control regularization techniques are demonstrated for generating optimal continuous and impulsive spacecraft trajectories. A novel acceleration-based methodology is used to construct bang-off-bang control profiles. To enforce bang-off-bang control structures, a maximum acceleration parameter is introduced to the problem formulation and numerical continuation is used to establish a connection between trajectories with continuous-thrust and impulsive maneuvers. Utility of the control regularization techniques are demonstrated for a set of orbit transfer maneuvers. (Received January 18, 2021)