

Poster Session (P)

Poster Lunch (1)

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RESEARCH ON FLEXIBLE INTERFERENCE SUPPRESSION TECHNOLOGY FOR LARGE SOLAR PANEL OF SPACECRAFT

Abstract

The solar panel of large spacecraft has the characteristics of large size and large flexibility. In order to improve tracking control accuracy for large flexible solar panel and reduce the flexible interference to spacecraft attitude, this paper presents a flexible interference suppression technology based on filter. The spectrum characteristics of the Butterworth filter, the structure filter and the periodic interference filter is discussed in detail, and their advantages and disadvantages are analyzed respectively. As well as a speed closed-loop control system based on filter is designed to suppress the flexible interference. Simulation results are presented to illustrate the effectiveness of the flexible interference suppression technology.

keywords: Large flexible solar panel; Filter; Interference suppression; Spacecraft