

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Future Space Transportation Systems Verification and In-Flight Experimentation (6)

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A TRAJECTORY DESIGN METHOD FOR THE CROSS-DOMAIN FLIGHT OF TRANS
ATMOSPHERIC VEHICLE

Abstract

The airspace and speed domain of Trans Atmospheric Vehicle reentry return airport relate to aerospace, aviation two major areas, and its flight path plan is the overall design of the forerunner. According to the task of aerospace of full mission would be separated to several parts to match design for airspace and speed domain, then obtain full mission compartmentalize plan; The flight performance and landing performance analysis of each flight part would be started, and judge that performance index whether meet the requirements. Thirdly, design the joining connect the each part path to an entire trajectory. Finally, trajectory optimization design for each part respectively and obtain the whole flight path.