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THE STUDIES ON VIRTUAL SIMULATION PLATFORM FOR THE ENTRY DESCENT AND LANDING SYSTEM OF SPACECRAFT

Abstract

Through making researches on the entry descent and landing(EDL) process of the spacecraft systemically, the basic characteristics of its project design for the EDL system are concluded in the paper, including the key points of aerodynamic shape, trajectory design, structure configuration, deceleration landing device and so on are analyzed and identified in detail. Based on the realization methods of the key design points, the virtual simulation platform(VSP) is built for the EDL system. It is studied that the system architecture, collaborative environment, functional module of the VSP. It also can provide some references to making further study of the Chinese interplanetary exploration in the future.