

Exploration of Other Destinations (5)
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FEASIBILITY STUDY OF AN INTERSTELLAR TRAVEL MISSION TO SIRIUS B STAR BY AN UNMANNED PROBE EMPLOYING NUCLEAR PROPULSION TECHNOLOGY

Abstract

'Capturer des étoiles' or capturing stars has always been one of the profound dreams of every human. As we witness the impending space technological advancement like Voyager, reaching stars is annexed in the space exploration projects. However, traveling to an interstellar medium with a manned probe remains to be hindered by the existing propulsion technologies. A precedent-unmanned flight to the stellar destination, Sirius B will reveal a mammoth of other associated data about the nearby dimmer and luminous objects. The flight path for an unmanned mission to the stellar system of Sirius B may be reduced significantly by traveling at semi-relativistic accelerations. This paper discusses the feasibility of an interstellar mission to Sirius B star emphasizing the near-future advanced propulsion technologies. Additionally, the paper encapsulates the viability of this flight exploration through wait time calculation employing the required propulsion technology. Such a mission opens a portal to access to new sources of energy and military technology.