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PROPULSION OPTIONS FOR COSMOLOGICAL MAPPING MISSION

**Abstract**

In a recent paper, the author showed how a mission to the Sirius system would enable the ability to use the gravitational lens properties of the Sirius star system to map the entire universe with a primary objective diameter of 11 million kilometers. The analysis indicated that employing the Lense-Thirring Effect enabled full-scope interrogation of the universe by employing frame-dragging principles. New information regarding the characteristics of white dwarfs will be applied to the former analysis. It is possible that the nature of white dwarfs may allow investigation across the electromagnetic spectrum from radio through X-ray frequencies with no frequency cut-off. However, a major technological issue is realistic propulsion options to enable the mission. This paper investigates various propulsion approaches, focusing on the Mini-Mag Orion technology investigated by the author with Andrews Space and Technology while the author was at Sandia National Laboratories. The paper analyzes potential of this technology to fulfill such a mission in the next thirty-fifty years.