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EXPLORATION OF THE EDGE OF HELIOSPHERE THROUGH STRATEGICALLY PLACED
SOLAR-SAIL PROPELLED SATELLITES**Abstract**

For over five decades, the shape and interaction of the heliosphere with the neighborhood interstellar medium have been discussed concerning two contending models: magnetospheric and symmetric bubble. Voyagers 1 and 2 crossed the termination shock, north and south of the ecliptic plane at 94 AU and 84 AU in 2004 and 2007, respectively, and discovered the reservoir of ions and electrons that constitute the heliosheath, while Cassini remotely imaged the heliosphere for the first time in 2003. This paper presents a much faster way to reach the interactive layer of the heliosphere, as compared to the time taken by the Voyagers 1 and 2, using a dynamic inter-planetary constellation of satellites that shall propel two Solar Sails using a controllable push-type propulsion by LASER. Besides previous missions, a more extensive study of the heliosphere will test the mankind's drive for deep space exploration, as exotic means of travel are needed. This paper will take a futuristic case study of the event and various possibilities of space travel will be discussed in detail. Comprehensive tables and graphs will be given, which will depict the amount of time that will pass at each stage of the mission and more importantly some idea on the cost in terms of energy, as well as money, will be discussed within today's context. Even though the possibility of such a mission is probably nonexistent for this decade, it is essential to do these exercises in order to unfold the mysteries of the universe. In addition, this paper hopes to establish some general guidelines for such exploring missions.