

Overview of the Lockheed Martin Compact Fusion Reactor (CFR) Program

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Abstract

The Lockheed Martin Compact Fusion Reactor (CFR) Program endeavors to quickly develop a compact fusion power plant with favorable commercial economics and military utility. An overview of the concept and its diamagnetic, high beta magnetically encapsulated linear ring cusp confinement scheme will be given. The analytical model of the major loss mechanisms and predicted performance will be discussed, along with the major physics challenges. Key features of an operational CFR reactor will be highlighted. The proposed developmental path following the current experimental efforts will be presented.