Overview of the Lockheed Martin Compact Fusion Reactor (CFR) T4B Experiment

THOMAS MCGUIRE, Lockheed Martin — The Lockheed Martin Compact Fusion Reactor (CFR) Program endeavors to quickly develop a compact fusion power plant with favorable commercial economics and military utility. The CFR uses a diamagnetic, high beta, magnetically encapsulated, linear ring cusp plasma confinement scheme. The goal of the T4B experiment is to demonstrate a suitable plasma target for heating experiments and to characterize the behavior of plasma sources in the CFR configuration. The design of the T4B experiment will be presented, including discussion of predicted behavior, plasma sources, heating mechanisms, diagnostics suite and relevant numerical modeling. ©2016 Lockheed Martin Corporation. All Rights Reserved.