HIF DRIVER POINT DESIGNS

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In 2002, the Robust Point Design of an HIF driver based on a driver with one induction linac transporting multiple beams and a distributed radiator target was completed. The main objective was to demonstrate the existence of a self-consistent solution that met in a robust manner all the requirements of the target, a thick liquid wall chamber, neutralized beam transport through the chamber, final focus magnet lifetime and driver architecture. In 2004, a program was launched to study an alternate Modular Point Design based on multiple identical induction linac modules and a hybrid target. The modular point design has significant payoffs in the driver development path. It also takes us into new regimes of physics related to beams with high line charge densities. These two point design studies will be presented and compared.

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