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NIF: PATH TO IGNITION IN THE LABORATORY

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January 23, 2006

IFSA
Biarritz, France
September 2, 2005 through September 8, 2005

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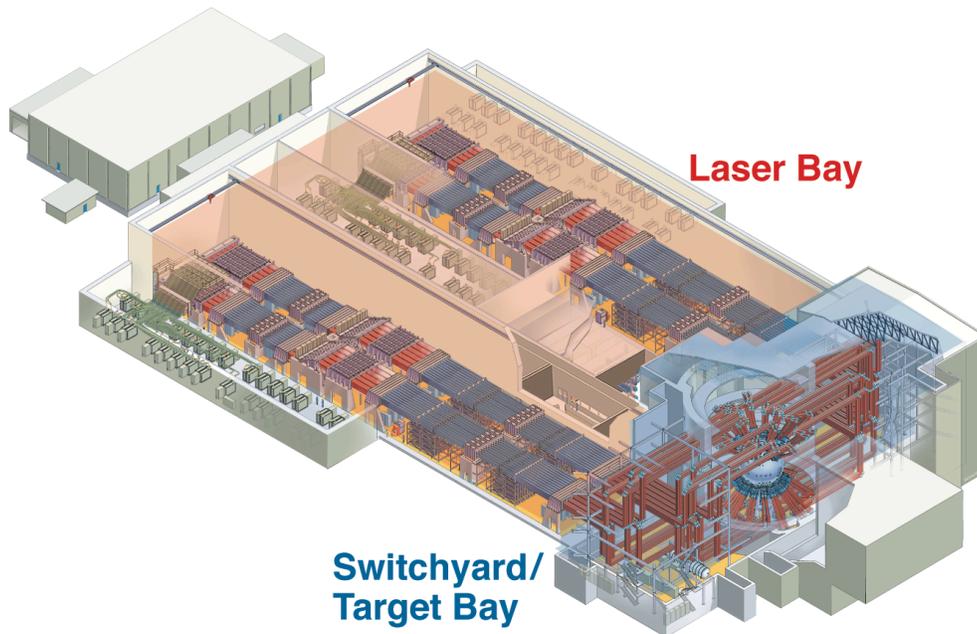
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The National Ignition Facility: Path to Ignition in the Laboratory

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The National Ignition Facility (NIF) is a 192 beam laser facility presently under construction at LLNL. When completed NIF will be a 1.8 MJ, 500 TW ultraviolet laser system. Its missions are to obtain fusion ignition and to perform high energy density experiments in support of the US nuclear weapons stockpile. Four of the NIF beams have been commissioned to demonstrate laser performance and to commission the target area including target and beam alignment and laser timing. During this time, NIF demonstrated on a single beam basis that it will meet its performance goals and demonstrated its precision and flexibility for pulse shaping, pointing, timing and beam conditioning. It also performed four important experimental campaigns for Inertial Confinement Fusion and High Energy Density Science. Presently, the project is installing production hardware to complete the project in 2009 with the goal to begin ignition experiments in 2010. An integrated plan has been developed including the NIF operations, user equipment such as diagnostics and cryogenic target capability, and experiments and calculations to meet this goal. This talk will provide NIF status, the plan to complete NIF, and the path to ignition.



This work was performed under the auspices of the U.S. Department of Energy by the University of California, Lawrence Livermore National Laboratory under contract No. 7405-ENG-48.