

Introduction to the Ignition Fusion Research Program on the National Ignition Facility*

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This lecture will review the ignition fusion research program that is currently being carried out on the National Ignition Facility (NIF) located at Lawrence Livermore National Laboratory. This work is being conducted under the auspices of the National Ignition Campaign (NIC) that is a broad collaboration of national laboratories and universities that together have developed a detailed research plan whose goal is ignition in the laboratory. The lecture will begin with a description of the NIF facility and associated experimental facilities. The lecture will then focus on the ignition target and hohlraum designs that will be tested in the first ignition attempts on NIF. The next topic to be introduced will be a description of the diagnostic suite that has been developed for the initial ignition experiments on NIF. The lecture will then describe the experimental results that were obtained in experiments conducted last fall on NIF. Finally, the lecture will end with a description of the detailed experimental plans that have been developed for the first ignition campaign that will begin later this year.

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