

Abstract Submitted  
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**Measurements of Peak X-ray Emission of imploding DT capsules using X-ray Diagnostics at the National Ignition Facility<sup>1</sup>** SHAHAB KHAN, ANDREW MACPHEE, NOBUHIKO IZUMI, STEVE GLENN, JOE KIM-BROUGH, HANS HERRMANN, JENNIFER CHURCH, PERRY BELL, DAVID BRADLEY, Lawrence Livermore National Laboratory, NATIONAL IGNITION CAMPAIGN COLLABORATION — The absolute time (bang time) and burn width of the x-ray emission from the imploding cores of deuterium-tritium capsules near peak compression are measured by several different but complimentary diagnostic instruments. These instruments report independent measurements for the bang time (BT) and burn width (BW). A summary of the results from recent DT experiments is presented contrasting the BT and BW reported by: SPIDER, an x-ray streak camera; Gamma Ray History, a gamma ray detector; and Hardened X-ray Gated Imager (HGXI), a gated micro-channel plate coupled to film camera. An evaluation of the shielding and design of the instruments is presented in order to compare the spectral sensitivity of the instruments. Simulations of the x-ray emission spectrum are examined with the results reported by these x-ray diagnostics.

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