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**First Results from the South Pole Bang Time (SPBT) Diagnostic on the NIF** D.H. EDGELL, V.YU. GLEBOV, J. MAGOON, T.C. SANGSTER, M.J. SHOUP III, C. STOECKL, Laboratory for Laser Energetics, U. of Rochester, A. MACPHEE, D.K. BRADLEY, S. BURNS, J. CELESTE, M.J. ECKART, O.S. JONES, J.D. KILKENNY, J.R. KIMBROUGH, A.J. MACKINNON, J. PARKER, T. THOMAS, LLNL — The south pole bang time (SPBT) x-ray diagnostic has been successfully fielded on the NIF. SPBT consists of chemical-vapor-deposition diamond detectors, with different filtrations, located 3 m directly below target chamber center, viewing the implosion through the hohlraum laser entrance hole. The diamond detectors are sensitive to both x rays and neutrons. HOPG crystal mirror monochromators increase the x-ray signal to background ratio. SPBT is designed to measure the x-ray bang time with an accuracy of a few tens of picoseconds. SPBT x-ray and neutron results from NIF implosions are presented along with timing and error analysis. This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

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