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Measurement of fluid motion using antipodal nToF detectors.¹ GARY GRIM, RICHARD BIONTA, JAC CAGGIANO, MARK ECKART, ED HARTOUNI, ROBERT HATARIK, Lawrence Livermore National Laboratory, JOE KILKENNY, General Atomics, Inc., ALASTAIR MOORE, DANIEL SAYRE, CHARLES YEAMANS, Lawrence Livermore National Laboratory — The mid-2016 implementation of a neutron time-of-flight (nToF) detector in the northern hemisphere of the NIF experimental areas has provided an approximately antipodal detector pair configuration. In addition to enabling the first measurements of neutron spectra in the northern hemisphere of the NIF Target Bay, this configuration enables the most sensitive measurement of north/south fluid motion during neutron production in inertial confinement fusion implosions. We present the status and initial results of measurements using the NIF antipodal nToF system.

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