

Abstract Submitted  
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**Comparison between initial Magnetized Liner Inertial Fusion experiments and integrated simulations**<sup>1</sup> A.B. SEFKOW, M.R. GOMEZ, M. GEISSEL, K.D. HAHN, S.B. HANSEN, E.C. HARDING, K.J. PETERSON, S.A. SLUTZ, Sandia National Laboratories, J.M. KONING, M.M. MARINAK, Lawrence Livermore National Laboratory — The Magnetized Liner Inertial Fusion (MagLIF) approach to ICF has obtained thermonuclear fusion yields using the Z facility. Integrated magnetohydrodynamic simulations provided the design for the first neutron-producing experiments using capabilities that presently exist, and the initial experiments measured stagnation radii  $r_{stag} < 75 \mu\text{m}$ , temperatures around 3 keV, and isotropic neutron yields up to  $Y_n^{DD} = 2 \times 10^{12}$  from imploded liners reaching peak velocities around 70 km/s over an implosion time of about 60 ns. We present comparisons between the experimental observables and post-shot degraded integrated simulations.

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