

**EXPERIMENTAL  $r$ - $\theta$  DENSITY PROFILES OF  
COMPACT, COPPER WIRE-ARRAY Z-PINCHES ON  
COBRA\***

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Calibrated  $r$ - $\theta$  density profiles from wire-array experiments on COBRA will be presented. Profiles are axially averaged over the height of the array. The data was gathered using an axial X pinch backlighter<sup>1</sup>. Images have better than 5-micron resolution with calibrated ion densities from  $10^{18}$  to  $10^{20}$  cm<sup>-3</sup>. The experimental data showing ion density and timing of ablation streams and precursor formation will be compared with simulation results.

1. I.C. Blesener et al., "Axial x-ray backlighting of wire-array Z-pinches using X pinches", Rev. Sci. Instrum. 80, 123505 (2009).

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