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Investigation of the 3D Structure of the Z-Pinch Using UV Laser $Probing^1$ AUSTIN ANDERSON, VLADIMIR IVANOV, University of Nevada Reno — The 3D structure of Z-pinches was investigated using four 266 nm beams. These beams were evenly spaced at 45 degrees with respect to each other, allowing a full view of pinch. The laser pulse duration is 150 ps, with a ~ 100 ps temporal accuracy between the 4 channels. Strong asymmetry was found in Z pinches produced by implosion of asymmetrical wire array loads. Studying the asymmetry of Z-pinches is important for understanding the 3D structure of Z-pinches and the effectiveness of using Abel inversion, which requires cylindrical symmetry. Results and a discussion are presented.

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Austin Anderson University of Nevada Reno

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