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High Voltage Coaxial Vacuum Gap Breakdown for Pulsed Power Liners SAMUEL CORDARO, SIMON BOTT-SUZUKI, LUIS SEBASTIAN CABALLERO BENDIXSEN, University of California San Diego — The dynamics of Magnetized Liner Inertial Fusion (MagLIF)¹, are presently under detailed study at Sandia National Laboratories. Alongside this, a comprehensive analysis of the influence of the specific liner design geometry in the MagLIF system on liner initiation is underway in the academic community. Recent work at UC San Diego utilizes a high voltage pulsed system (25kV, 150ns) to analyze the vacuum breakdown stage of liner implosion. Such experimental analyses are geared towards determining how the azimuthal symmetry of coaxial gap breakdown affect plasma initiation within the liner. The final aim of the experimental analysis is to assess to what scale symmetry remains important at high (MV) voltages. An analysis of the above will utilize plasma self-emission *via* optical MCP, current measurements, voltage measurements near the gap, exact location of breakdown via 2D b-dot probe triangulation, as well as measuring the evolution of the B-field along the length of the liner *via* b-dot array. Results will be discussed along with analytical calculations of breakdown mechanisms

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