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Beta Particle Detection Using a Gas Electron Mutiplier MONICA AVILA, JAEHOON YU, JOSHUA MEDFORD, ERIC AMADOR, NICK LIRA, University of Texas at Arlington, HIGH ENERGY PHYSICS GROUP COLLAB-ORATION — My current research focuses on beta particle detection by electron amplification using a Gas Electron Multiplier (GEM). This study revolves around the GEM detector itself, and how its geometry affects gain. In my research, this includes utilizing both a two and three layer detector. By using beta decay as a source, I can create a avalanche effect in the detector which proceeds to create a signal. The argument remains wether an extra gem foil layer and detector is a key factor in results.

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