

Analog Front-end Electronics for the LZ Experiment

Saturday, 2 December 2017 16:10 (10 minutes)

The LZ experiment will deploy approximately 500 photomultiplier tubes to collect light from its liquid xenon volume. The job of the front-end electronics will be to provide both excellent efficiency for single photon detection and a large dynamic range to accommodate the largest pulses from calibration sources. I will present the design of a dual gain amplifier, which will have different shaping times for the two outputs. A systematic transient, noise and gain and phase analysis of this modified version of the LZ amplifier will be discussed in this talk. Preliminary measurements from prototype boards will also be presented.

Session

Works in Progress (15+5 min)

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Session Classification: Lightning Talks