

LArIAT

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LArIAT Run 2: Better Than Ever

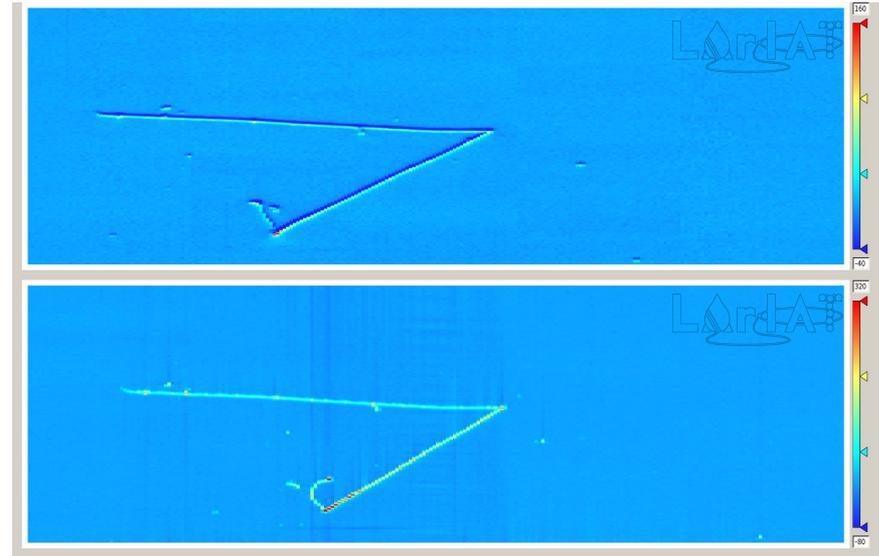
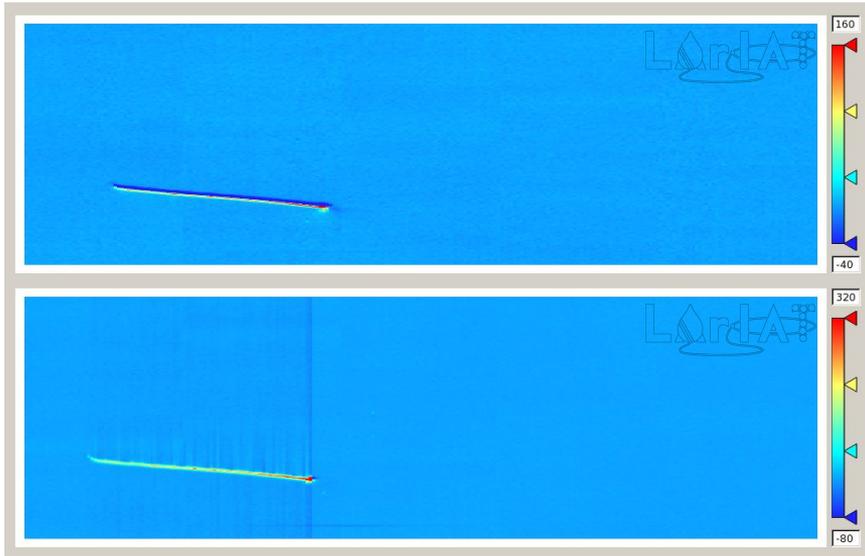
Implemented from 2015.11.09 LArIAT AEM presentation:

- Ar exhaust-line phase separator (better LAr reclamation)
- TPC: Better-tuned R and C values on wire planes, readout electronics
 - Lowered crosstalk between neighboring TPC wires
 - Decreased undershoot following large pulses
 - Removed high-frequency op-amp noise
- Better light collection PMT grounding/powering scheme
 - Nearly eliminates PMT-induced signal on the TPC wires

Also:

- One Photo Multiplier Tube face dipped in wavelength shifting TPB solution
- New SiPMs including a VUV sensitive one
- Kept and improved on primary & secondary beam tune

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Coming online now:

- Machinery for estimating POT-weighted DAQ uptime fraction
- First public physics analysis: Interaction Cross Section π^- on LAr
 - Many more analyses to follow the trail we blaze with this one