

Icarus T-600 Trigger System

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The ICARUS-T600 detector at LNGS is the first large mass Liquid Argon TPC (LAr-TPC) going into operation in an underground laboratory.

In the development of the electronics, a particular effort has been addressed to study and implement an on-line hit finding algorithm, for the definition of regions of interest (ROI). This feature has shown to be sensitive to small charge depositions (~ 1 MeV) while keeping a good granularity, necessary for the reduction of the total throughput ($\sim 10^{11}$ volumetric pixel per second).

The integration of the ROI signals into the trigger management leads to flexible and efficient solutions, perfectly suited for the variety of physical events studied by the present detector, but also by future LAr-TPC.

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