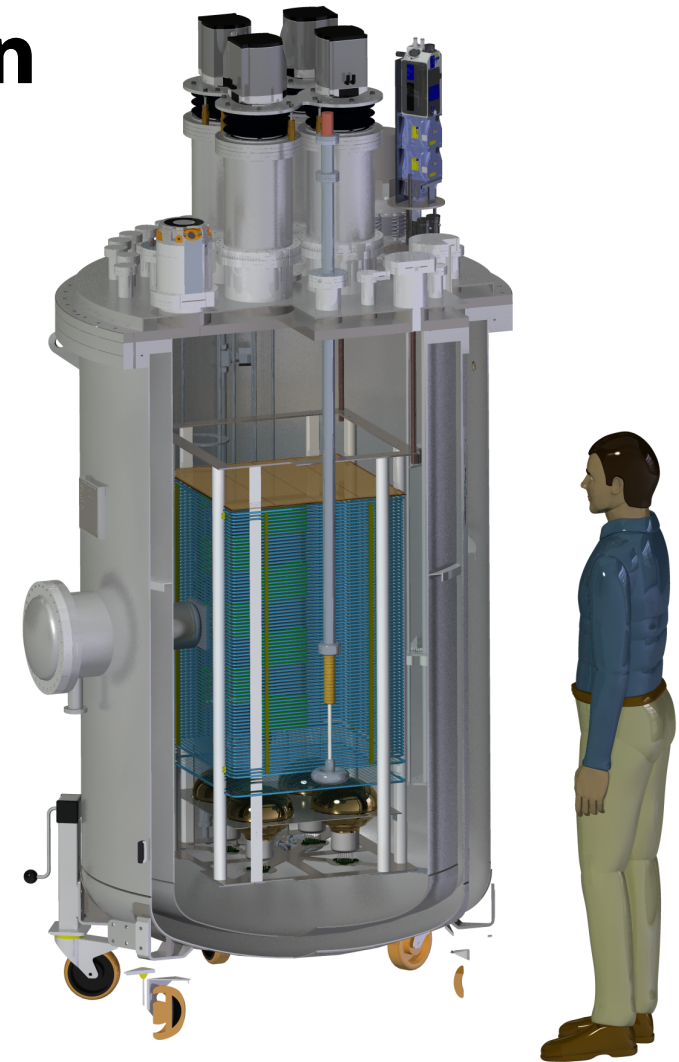


ARIADNE: A Photographic 1-ton Two-Phase Liquid Argon Detector at T9 beam line

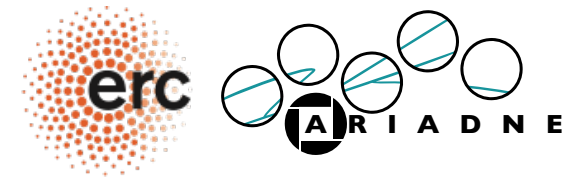
Kostas Mavrokoridis

k.mavrokoridis@liv.ac.uk

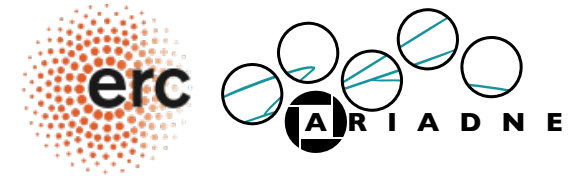
<http://hep.ph.liv.ac.uk/ariadne>



ARIADNE: Cont. Beam Operation



ARIADNE: Cont. Beam Operation



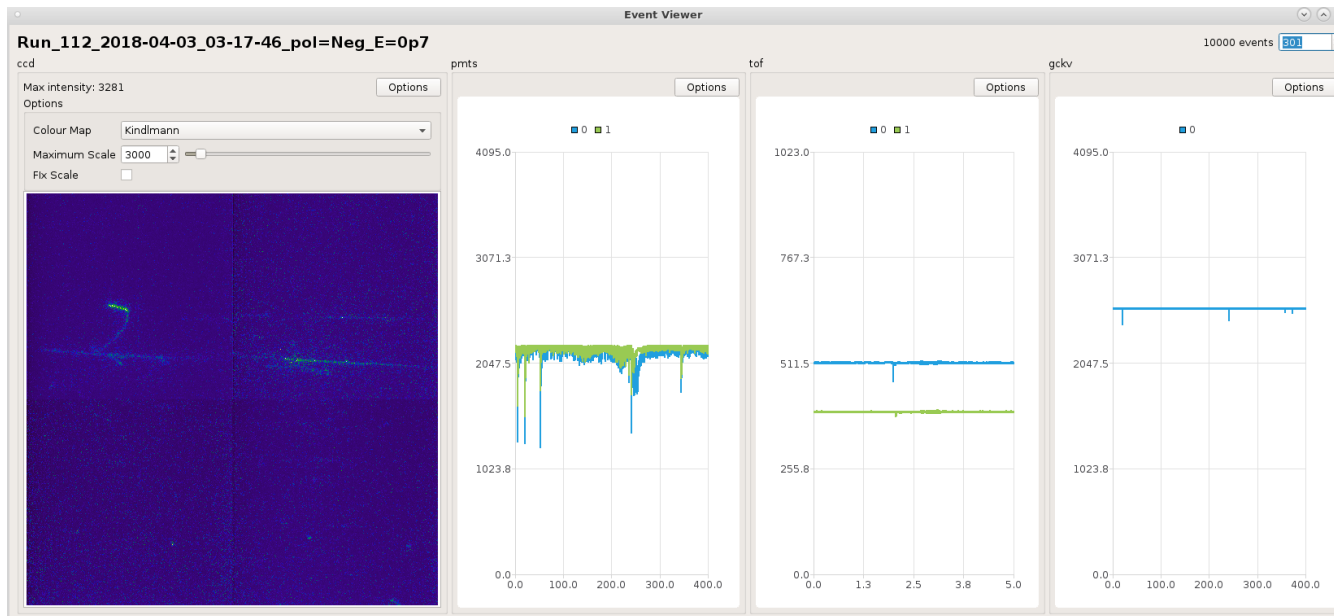
Beam operation is very smooth

Data collected so far 0.5 GeV – 5 GeV)

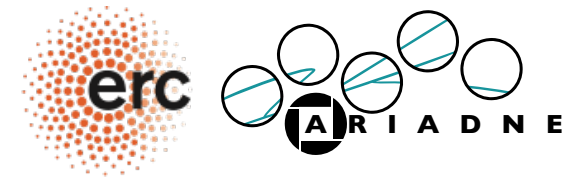
~200,000 events Negative Polarity

~200,000 events Positive Polarity

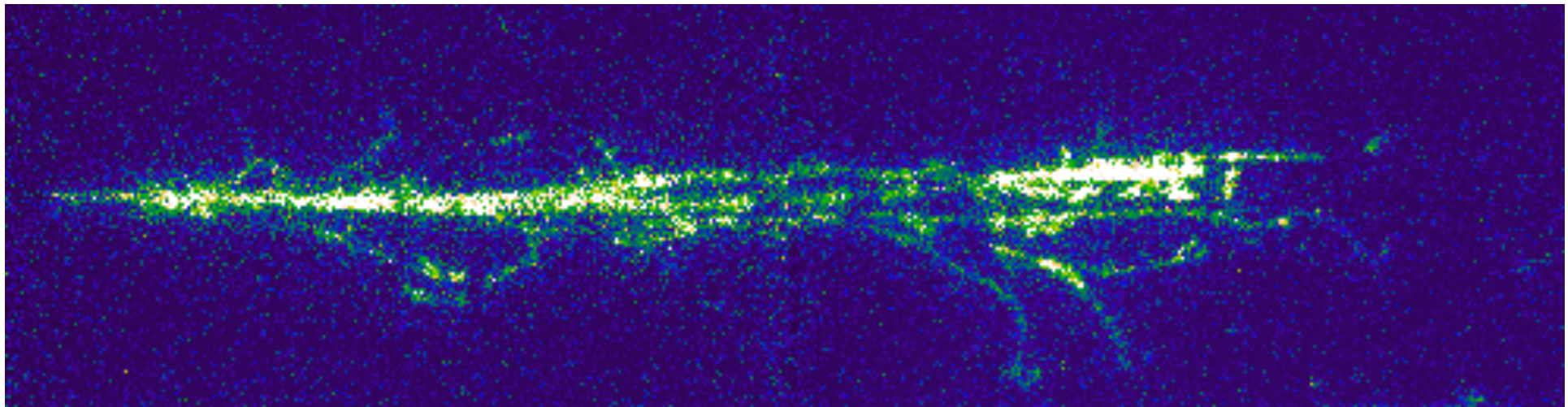
Will continue to accumulate more statistics for the next 5 days, adjusting some detector parameters



ARIADNE: Preliminary Tracks

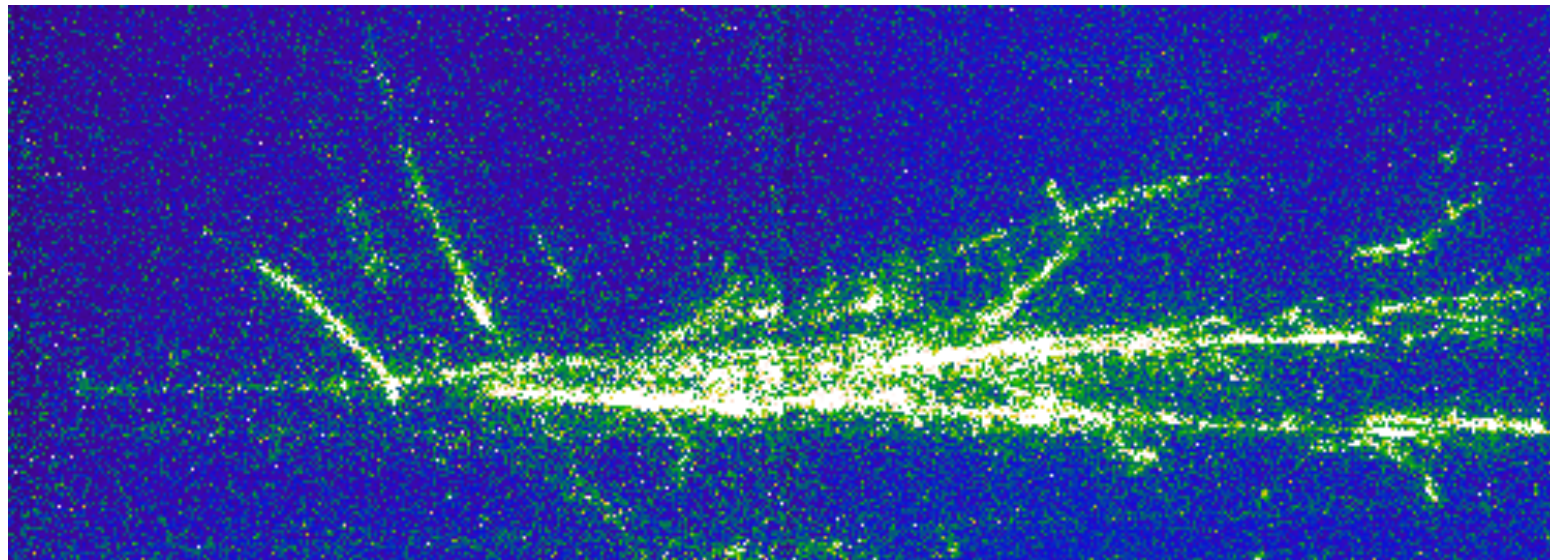
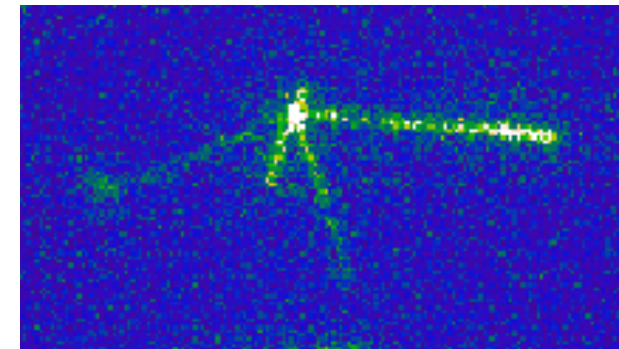
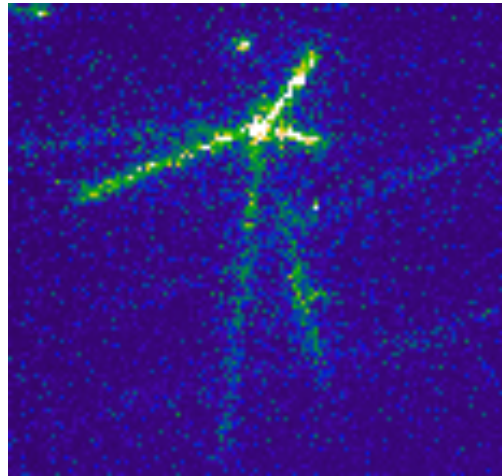
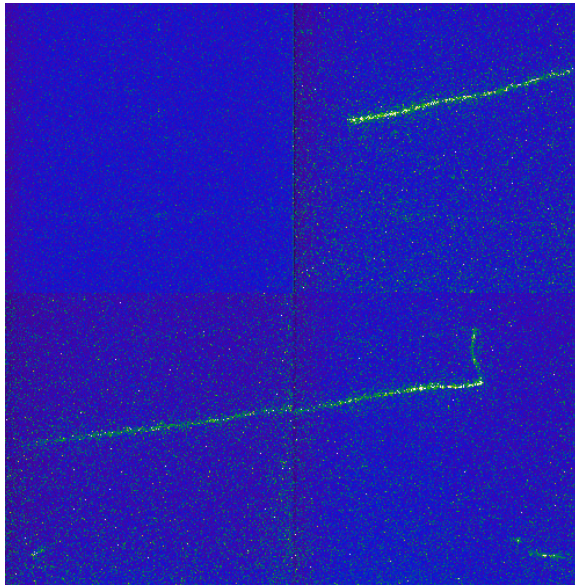
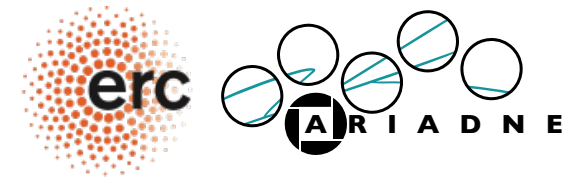


Ariadne was very successful to optically image tracks from the beamline using a two phase liquid argon TPC. This is the first time that this approach has been demonstrated in a beamline. We are very pleased.

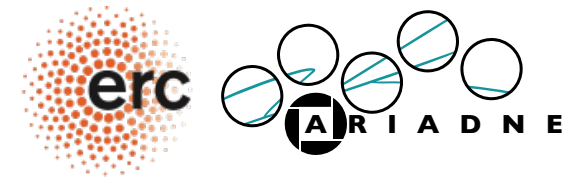


0.5 m

ARIADNE: Preliminary Gallery



ARIADNE: Logistics for next Week

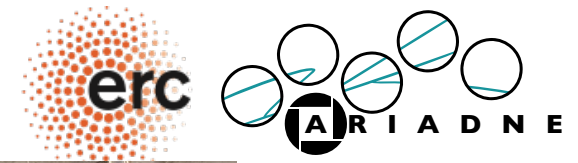


We are aiming to start decommissioning on Tuesday next week in order to give the area to the next users by Wednesday morning. The scaffold will need to be taken down on Tuesday.

The detector will need to be moved out of the T9 to the other building entrance just beyond the CLOUD experiment. It will have to stay there for about a month in order for the argon to boil off (details to be discussed later, depends on the heat input we introduce).

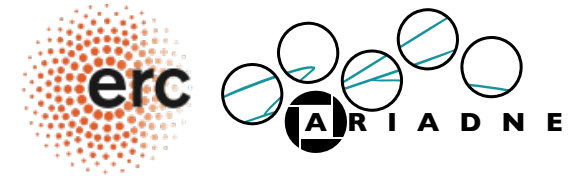


ARIADNE: The Team



We would like to thank:

ARIADNE: Many thanks



During our stay here many people help us realize this project and **many thanks must go:**

Lau Gatignon & Johannes Bernhard, (Beam), Michael Jeckel (many logistics), Johan Bremer & Laetitia Dufay-Chanat (cryogenics), Alexandre Desmarest & Olga Beltramello (safety and operational logistics), Shaun Nightingale (Crane/forklift) and of course all the SPS committee for the approval

ARIADNE: Many thanks

