



Physics Coordinators Report



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Rutherford Appleton Laboratory

Physics Report



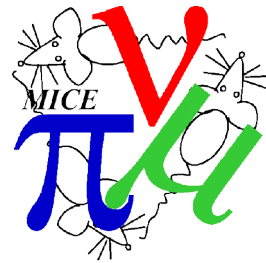
- Many analysis talks in the plenary sessions
- Here is only a very brief pointer to the different talks
 - Summary/reminder of data taken
 - Papers
 - Other analyses

Data taking to CM47



Date	Subject
June/July 2015	Tracker Commissioning
September/October 2015	Magnet commissioning
December 2015	Scattering in Xenon
February/March 2016	Straight tracks scattering programme (LiH)
July 2016	Single Magnet Powering Studies
September/October 2016	Field-on material physics studies
November/December 2016	Field-on emittance evolution studies
February/March 2017	Flip-mode LiH emittance evolution studies
May 2017	Straight tracks scattering programme (INe)

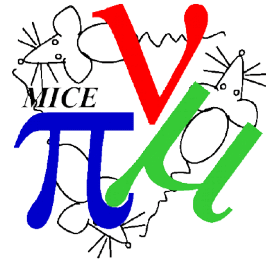
Data taking in 2017/02



Date	Name	Subject
19 Sep – 21 Sep	Straights	Alignment and calibration
21 Sep – 27 Sep	2017/02 1	Beta ~ 800 mm; p = 140 MeV/c; solenoid
27 Sep – 28 Sep	2017/02 2	Beta ~ 800 mm; p = 200 MeV/c; solenoid
28 Sep – 29 Sep	Straights	Straight track running @ 170, 200 MeV/c
29 Sep – 2 Oct	2017/02 3	Beta ~ 700 mm; p = 140 MeV/c + momentum scan
2 Oct –	2017/02 4	Beta ~ 1200 mm; p = 140 MeV/c

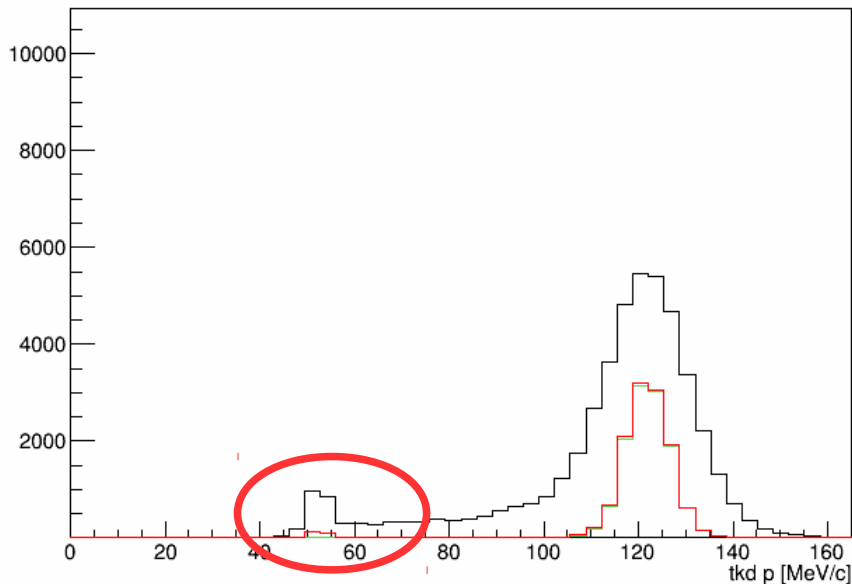
- 2017/02
 - Liquid Hydrogen!
- Thanks as always to MOMs
 - Paolo Franchini
 - Durga Rajaram
 - Melissa Uchida

Tracker Features

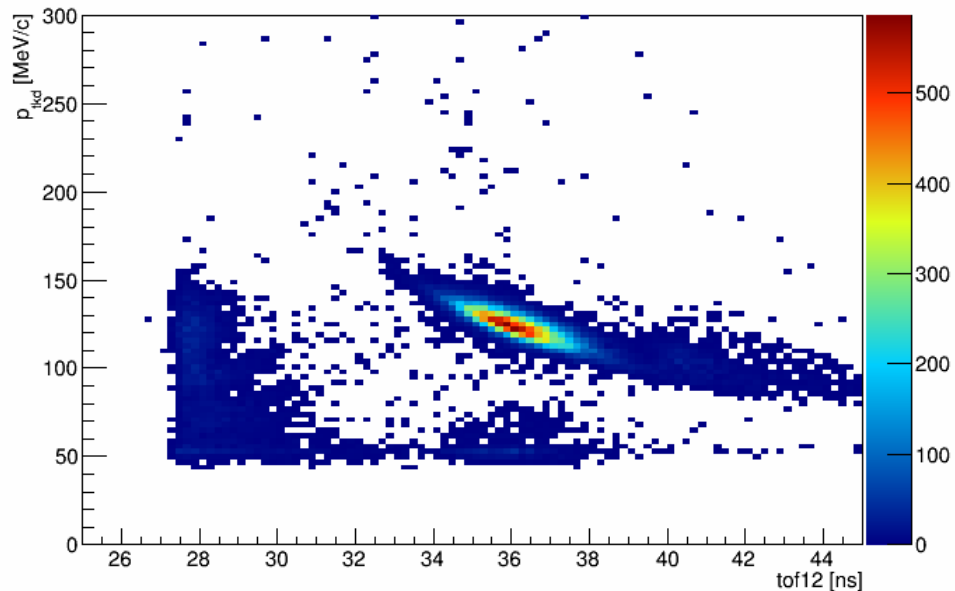


- For discussion during the meeting
 - Excellent work to recover the tracker
 - Can we improve TKD reconstruction efficiency

2017-02-3 6-140-9782



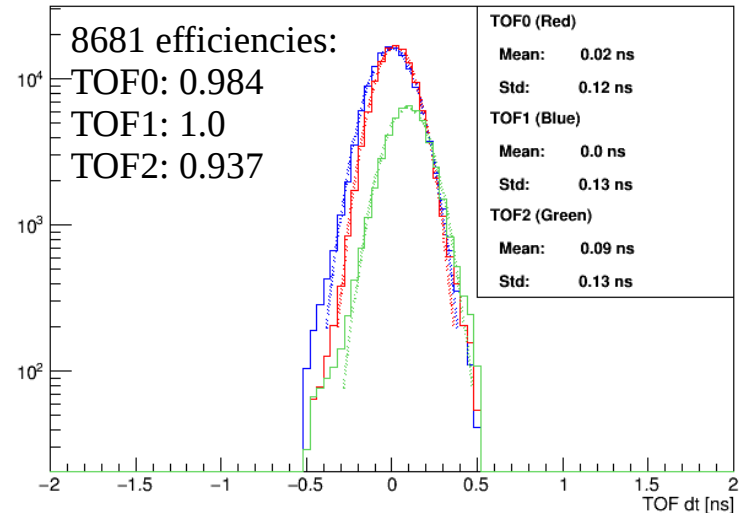
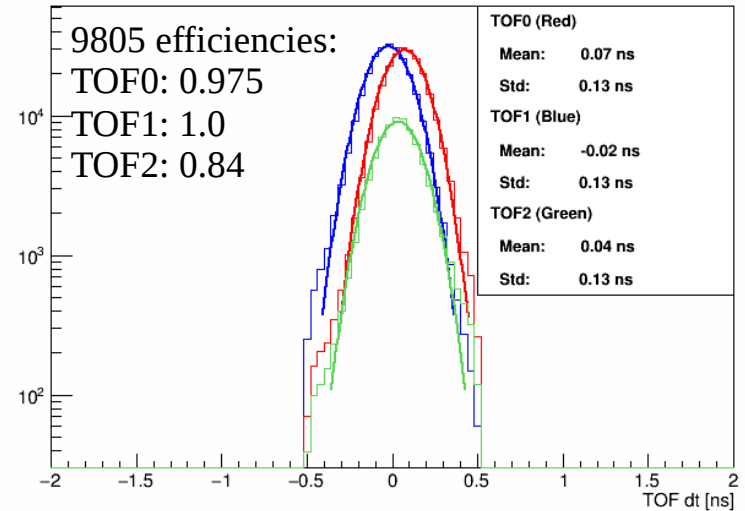
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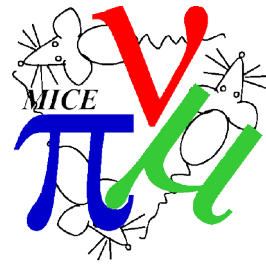
TOF Features



- For discussion during the meeting
 - Chronic systematic issue in the TOF reconstruction
 - Chronic inefficiency in TOF2
 - Can we address this?

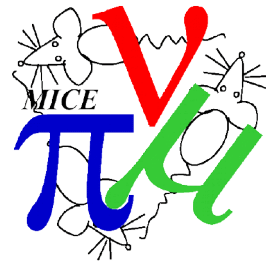


Analysis papers



- Measurement of emittance paper
 - Uncertainties (systematic and statistical)
 - Ready for referees ASAP
- Straight tracks scattering paper
 - Is the momentum estimate correct?
 - Is the fiducial cut okay?
- Emittance evolution paper
 - Uncertainties (systematic and statistical)
 - Data is now 10 months old - can we be ready before it is 11 months old?
- For discussion on Tuesday morning

Next round of papers



- Field-on scattering paper
- System paper and energy loss
- Density estimators and other nice analyses for emittance
- For discussion on Tuesday morning/afternoon