Analysis with MarlinTPC

TPC-Analysis-Meeting 19th August 2014

Jan-Hendrik Arling
Analysis with MarlinTPC
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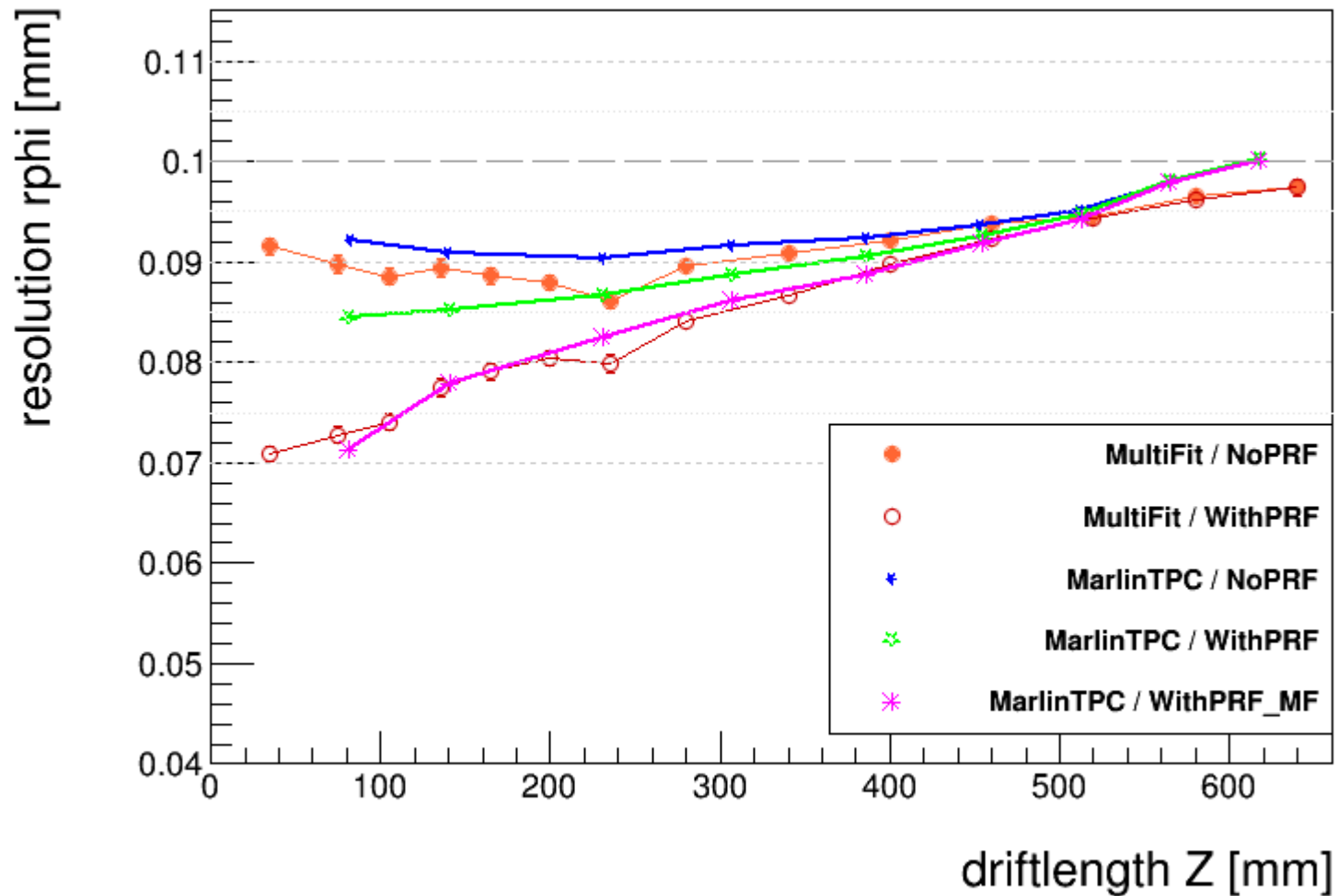
HELMHOLTZ | ASSOCIATION

DESY

The first aim

> Analysis of the dataset "MediTPC with cosmics" (run0069) with P5-gas and B=4T, staggered stage

> these data were already processed by Ralf Diener with the "old" framework MultiFit

> now: process the data with MarlinTPC and aim for comparable results

> especially: integration of MultiFit's Pad Response Correction (PRC)

> Analysis steps performed with MarlinTPC:

  - PreReco + ZBinning + AnalysisMarlin
  - + RecoPRC + AnalysisMarlinWithPRC

The first aim: the results

Resolution rphi total @B=4T (P5 gas)

The first aim: the results

> Green graph: PRC with calculated parameters (fitting PRF width) for defocusing and diffusion

> Pink graph: PRC with used parameters of MultiFit (were simulated by MAGBOLZ)

> problem: divergence of a factor 2 in defocusing

> new ansatz: include induction phenomena in fitting PRF process

Outlook:

1) calculate parameters for Pad Response Correction out of the data set and not externally by simulation

2) perform the same processing with data form T2K-gas (run0095/0096)