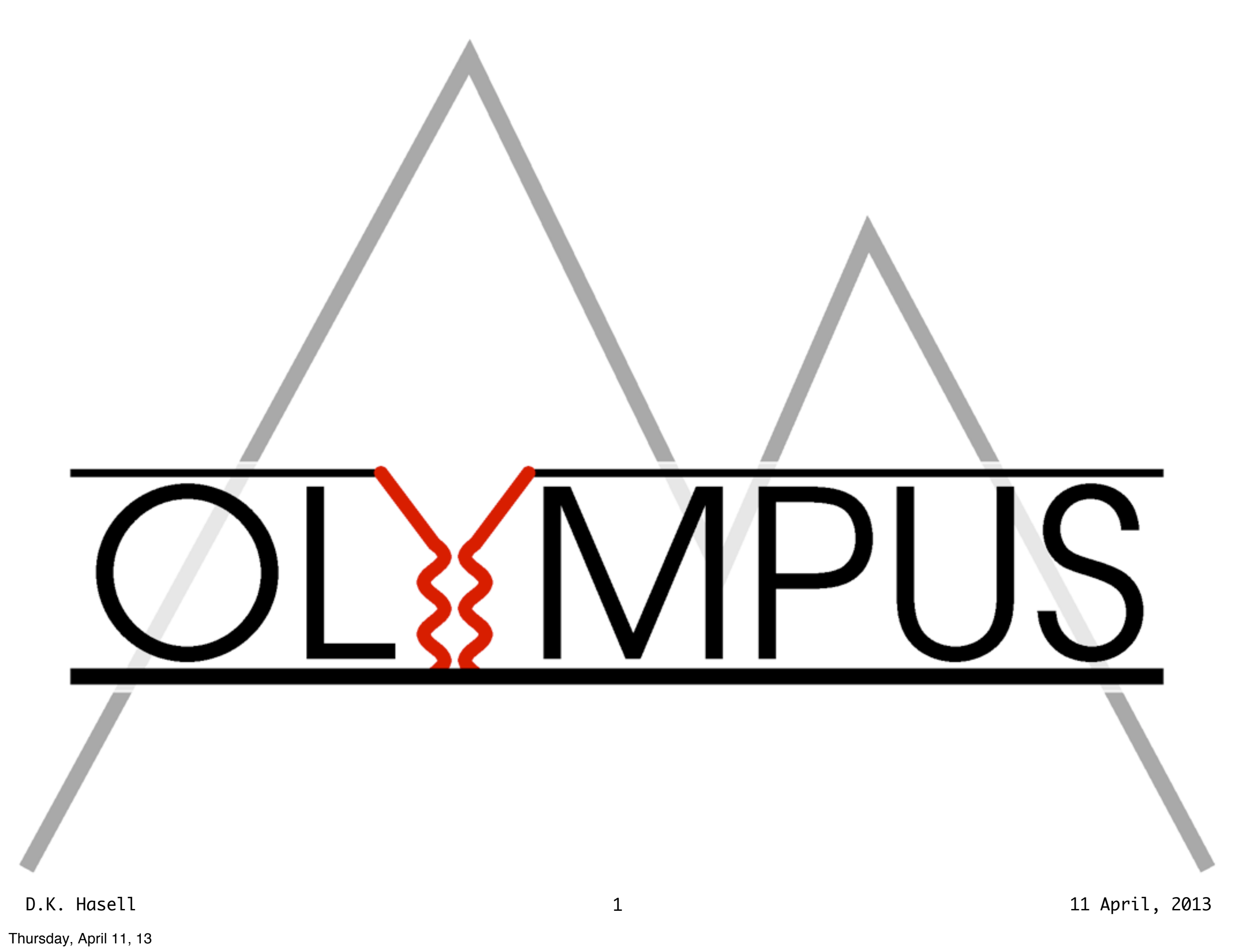




OLYMPUS

Tasks and Milestones

Magnetic field

- finish mapping - April - DESY, MIT, PNPI, Yerevan
- analyse measurements and fit to produce interpolant - May - MIT

Optical survey

- finish survey - April - DESY, MIT
- analyse and implement into analysis and Monte Carlo - May - MIT

Run and event list - June

- need input from each detector group - MIT, HU, PNPI, Yerevan, Mainz

Beam energy - June - DESY

Symmetric Møller / Bhabha luminosity - September - Mainz

- calculations beyond tree level ?
- pedestals, gains, resolution, stability of cuts, pile-up
- Monte Carlo simulation, magnetic field, acceptance
- study and correct for beam position and angle

Tasks and Milestones

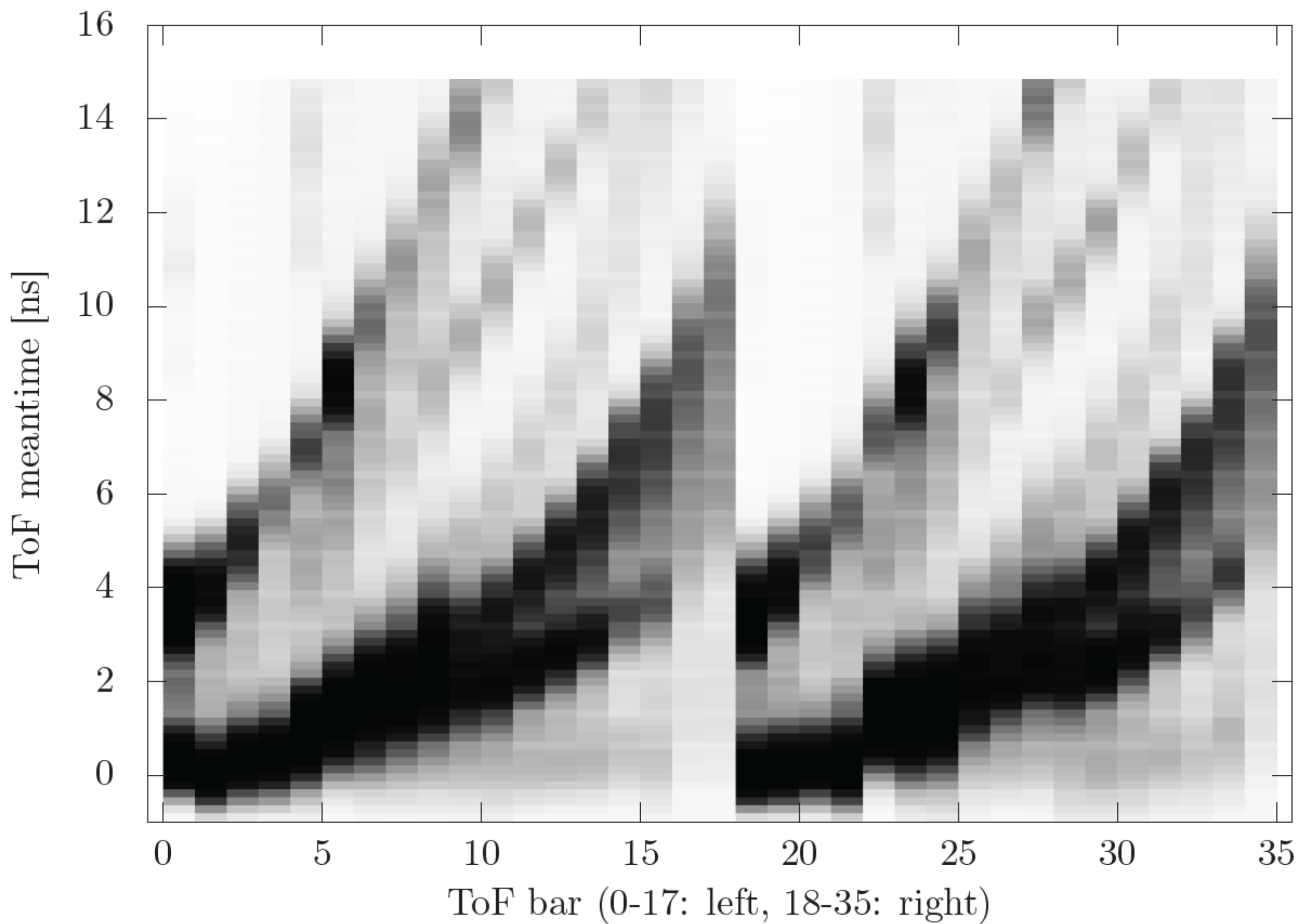
12° GEM and MWPC luminosity - August - HU, PNPI

- clustering and track reconstruction (need WC tracks too)
- resolution, efficiency, WC and TOF efficiency for proton
- Monte Carlo simulation and digitization
- study acceptances

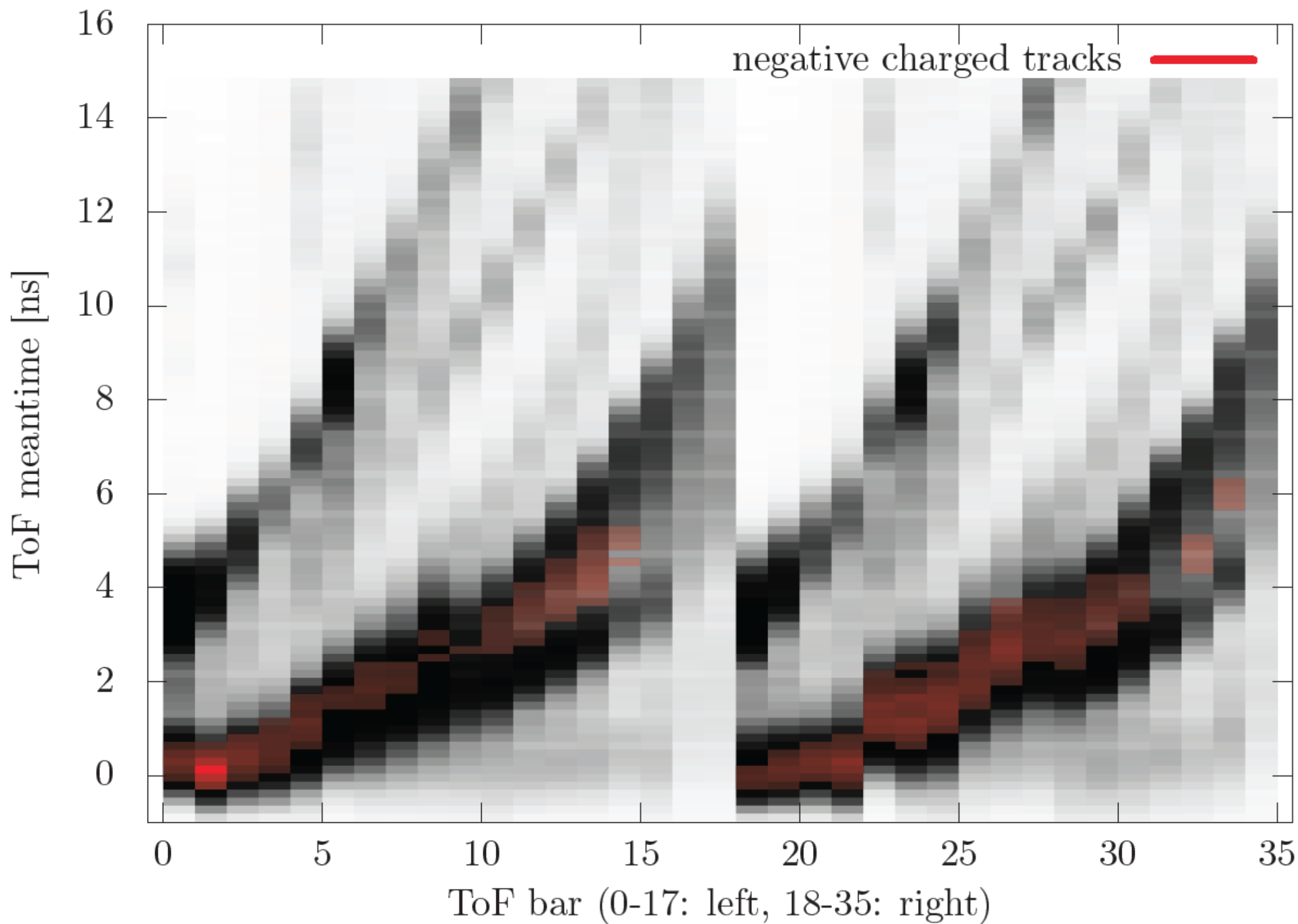
Time of Flight detectors - August - Yerevan, MIT

- time offsets, pedestals, gain, and efficiencies versus run
- trigger efficiencies
- Monte Carlo simulation and background
- analyse cosmic ray data

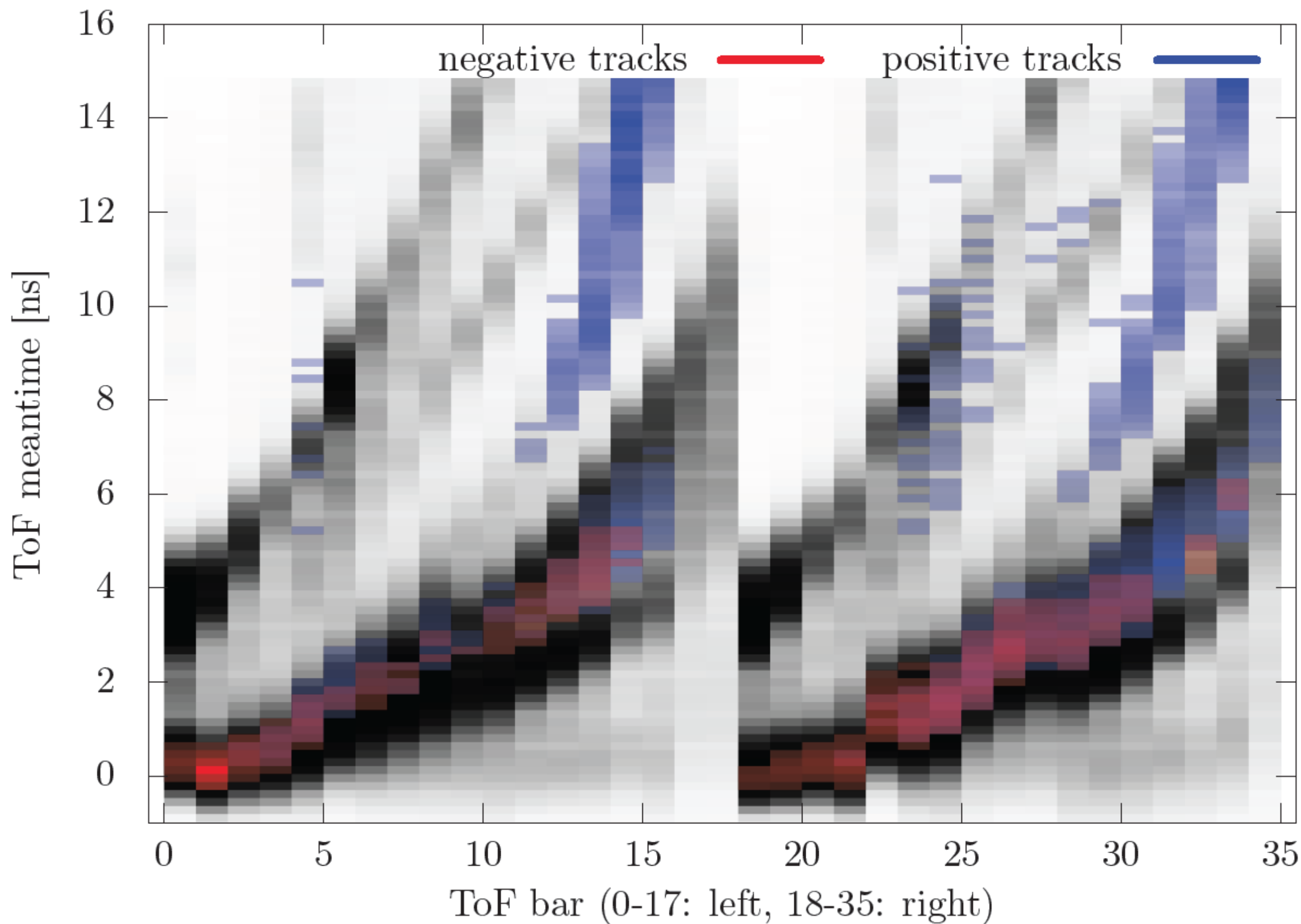
Time of Flight Detector



Time of Flight Detector



Time of Flight Detector



Tasks and Milestones

Wire chambers - July - MIT

- track t0 calibrations and detector performance with run number
- waiting on magnetic field map and detector survey
- preliminary versions of codes in place and tested
 - time to distance algorithm
 - self annealing fit
 - Kalman filter
- need to tune reconstruction with data and compare results
- simulate wire chamber and background in Monte Carlo
- analyse cosmic ray data for wire chamber constants

Analysis - starting in July - everyone

- produce ntuple from data and Monte Carlo for analysis - MIT
 - discussing blinding the data by filtering tracks
- study systematics
 - time dependence of rates
 - trigger and detector efficiencies
 - impact of misalignment, gaps in TOF, beam position, and slope, magnetic field

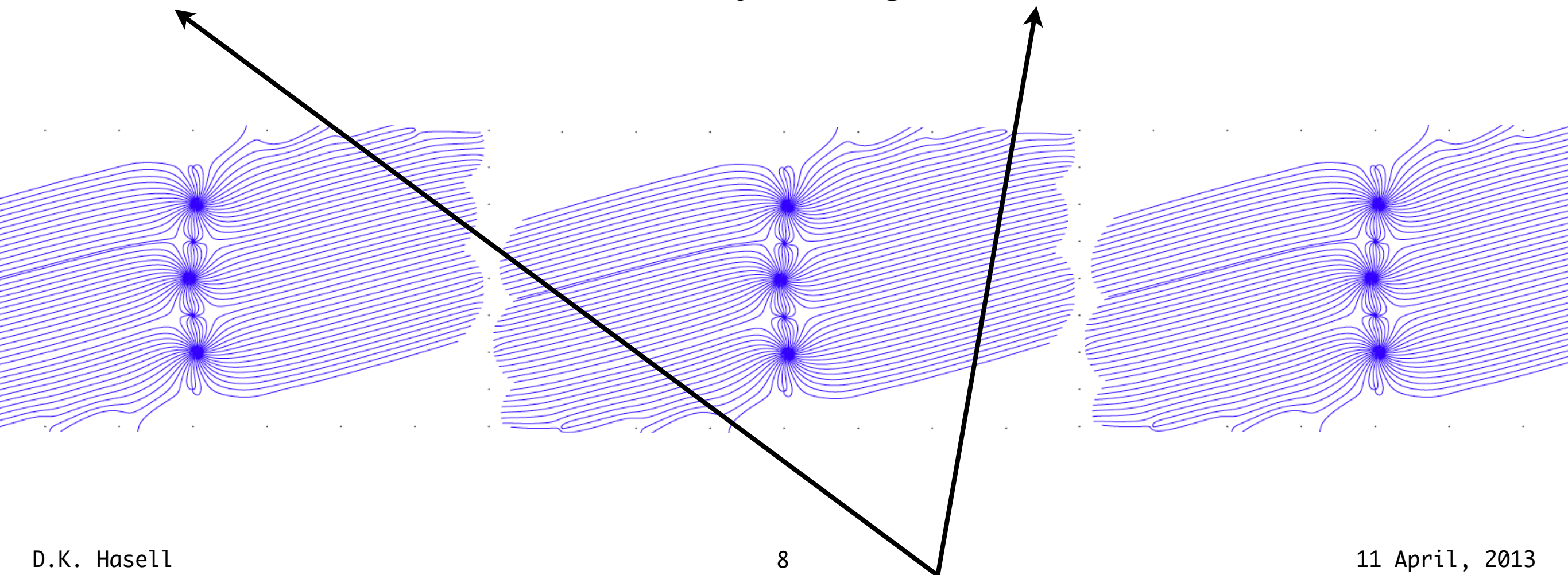
Tracking in Wire Chambers

Reconstruction same for all tracks for a given field

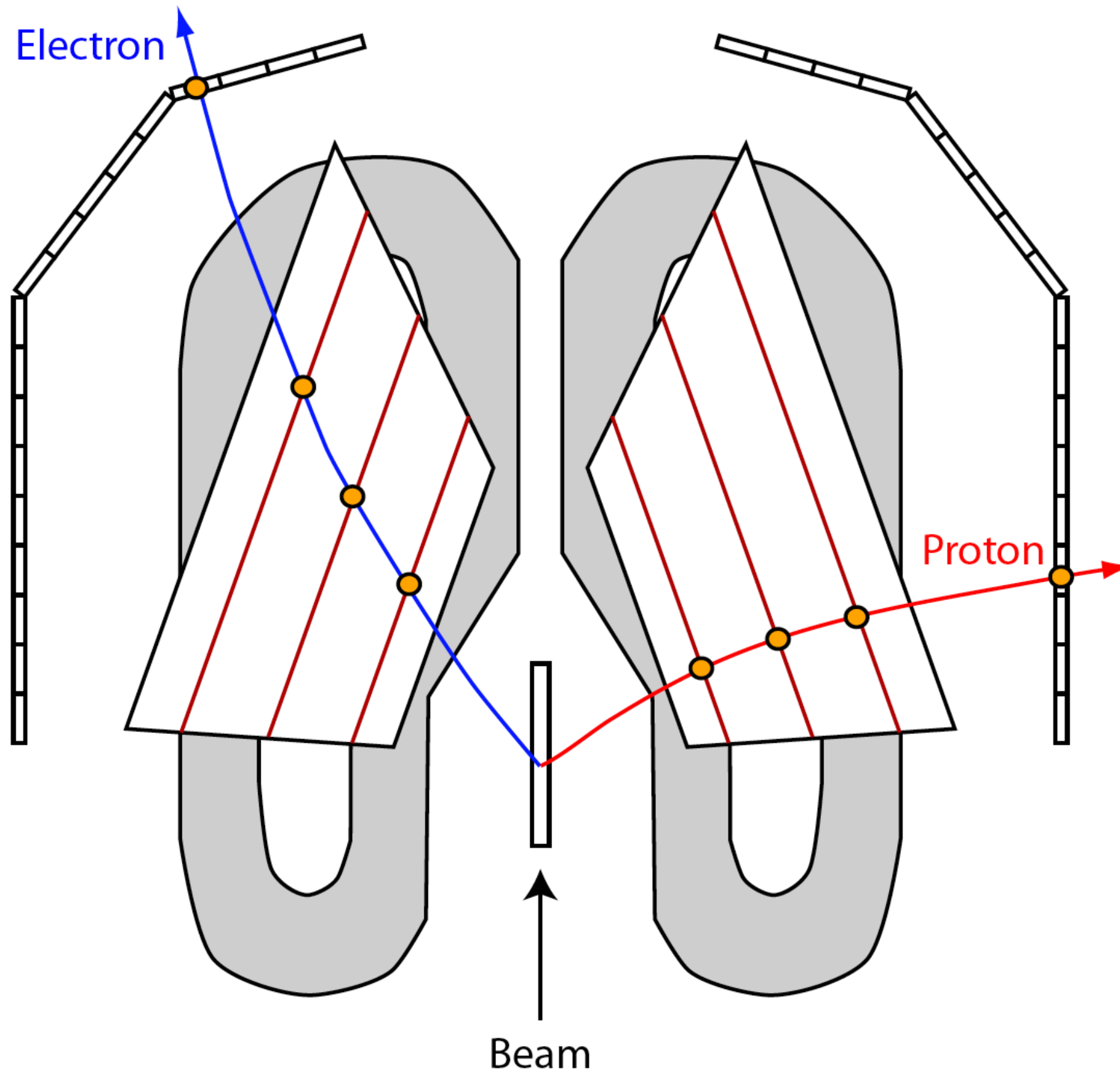
However:

- variation from non-uniform magnetic field changing Lorentz angle
- resolution depends on drift distance and ionisation statistics

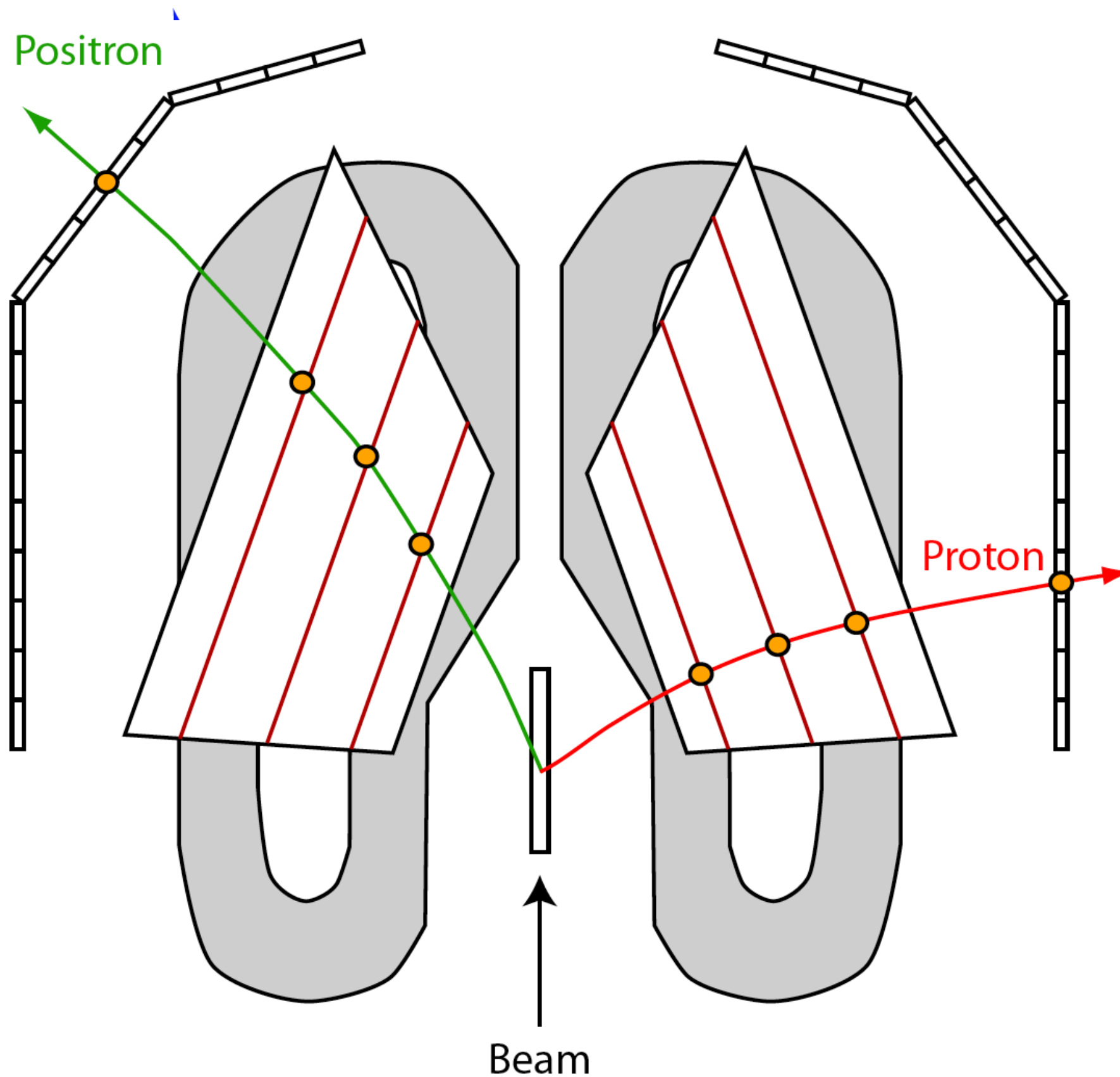
Analysis using a calculated time to distance algorithm or one derived from the data by fitting



Tracking in Wire Chambers



Tracking in Wire Chambers



OLYMPUS Management

At last collaboration meeting decided on a new organisation structure for analysis phase of OLYMPUS

Spokesman - D. Hasell - MIT

Deputy - U. Schneekloth - DESY

Physics coordinator - M. Kohl - HU

Analysis coordinator - J. Bernauer - MIT

Luminosity coordinator - J. Diefenbach - Mainz

DESY analysis coordinator - S. Belostotski - PNPI

Detector coordinators as before but now responsible for seeing their detector is integrated into the analysis framework.