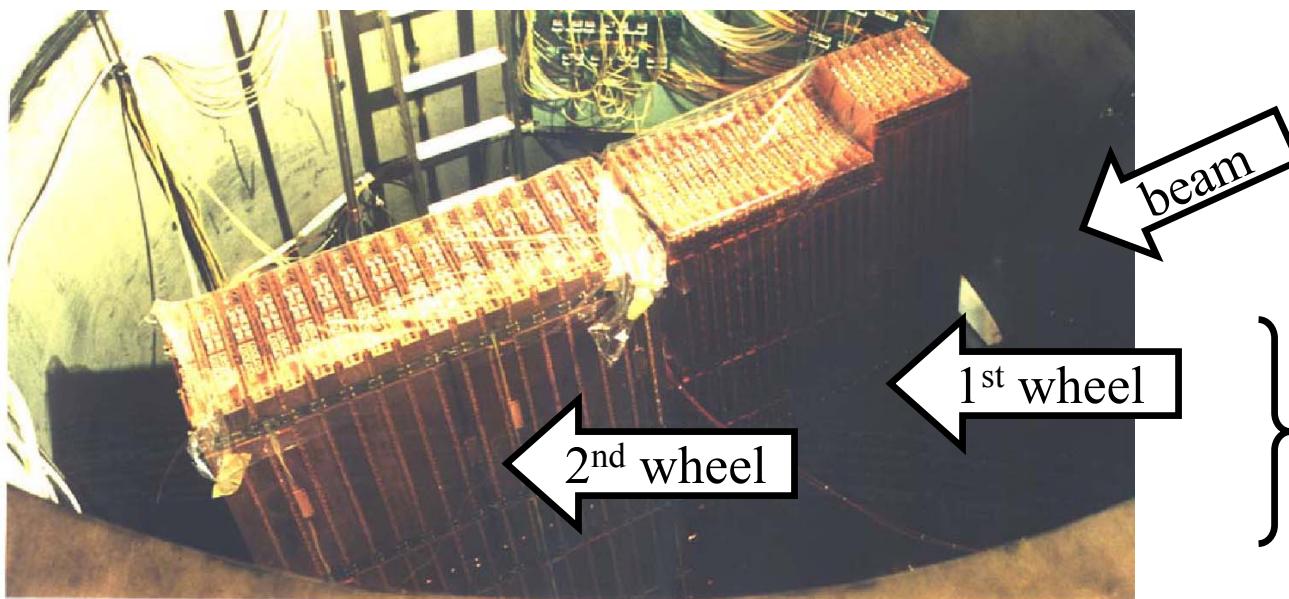
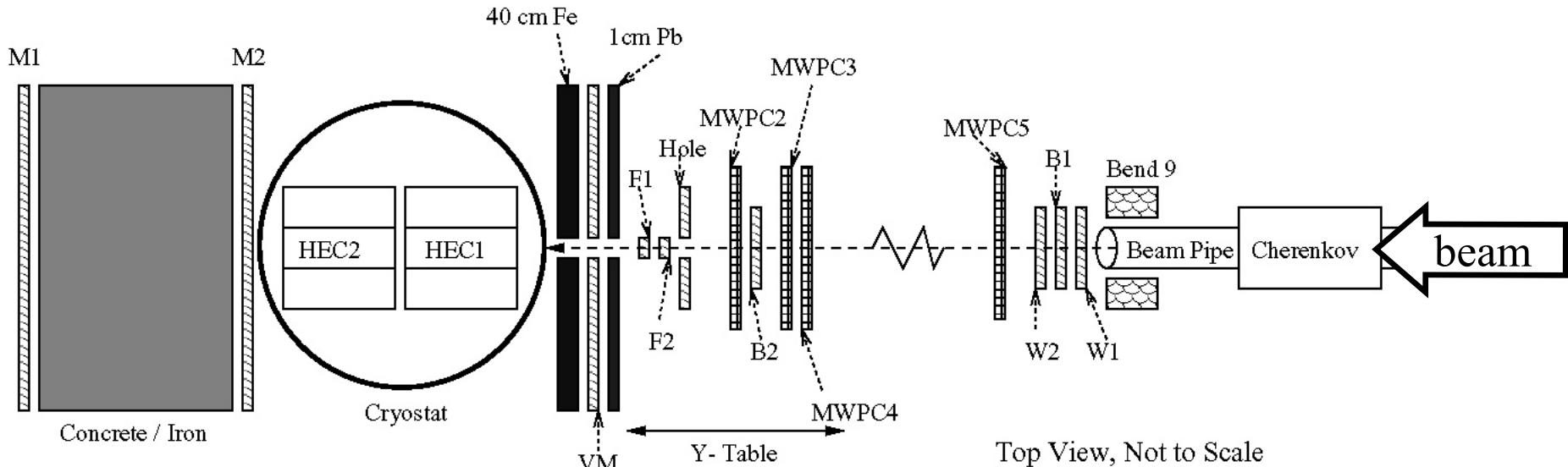


HEC Beam Test Primer

- Production modules of the HEC have been tested in particle beams in 1998, 1999, 2000 and 2001
 - Lots of data (electron, pions, muons, 6 to 200 GeV)
 - Pulse shape sampled for many 25ns time samples
 - Calibration parameters obtained from special runs
 - Signal peak reconstruction parameters obtained from noise measurements and knowledge of pulse shape
 - `hec_adc` software framework
 - NIM paper accepted for publication
- Getting ready for combined beam tests
 - HEC/EMEC scheduled for August 2002
 - HEC/EMEC/FCAL in 2003

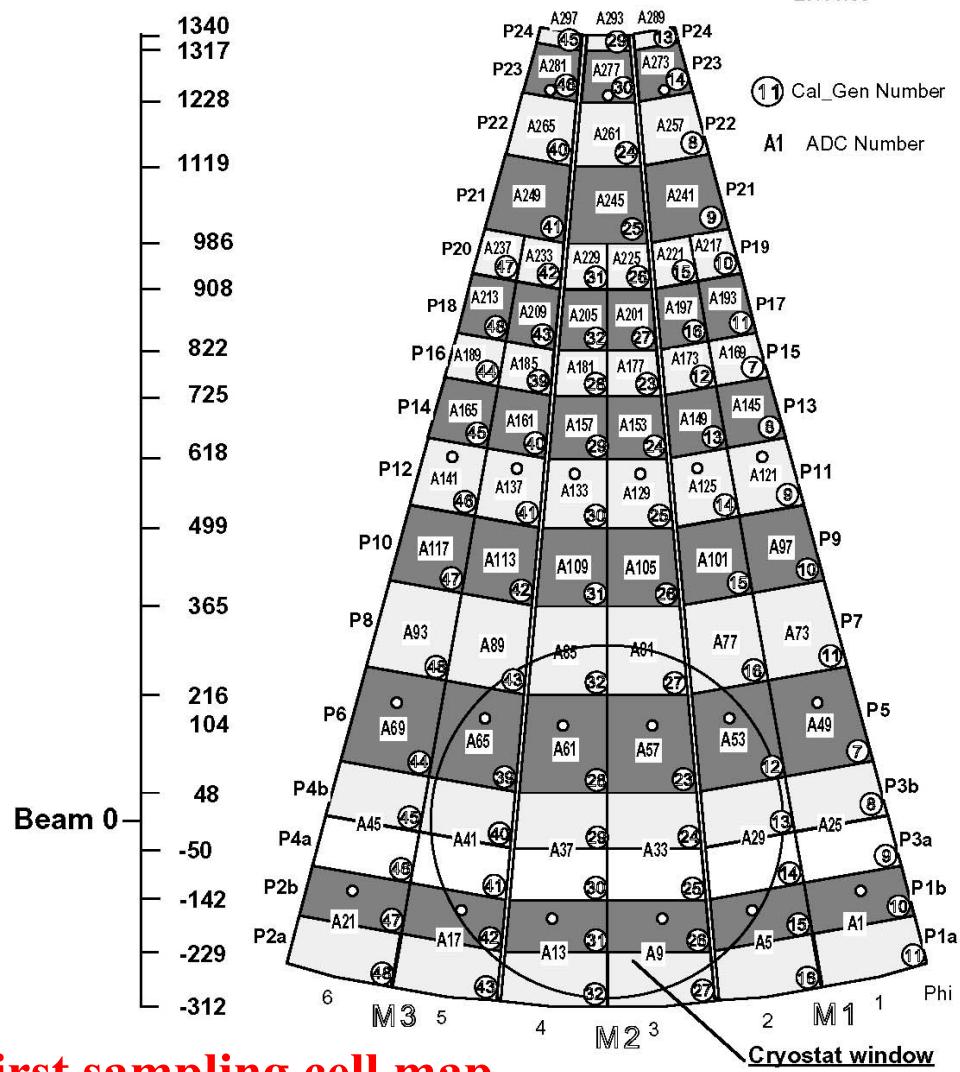
HEC beam test setup



12 October 2001, M. Lefebvre HEC-Athena Tutorial: HEC beam test primer 2

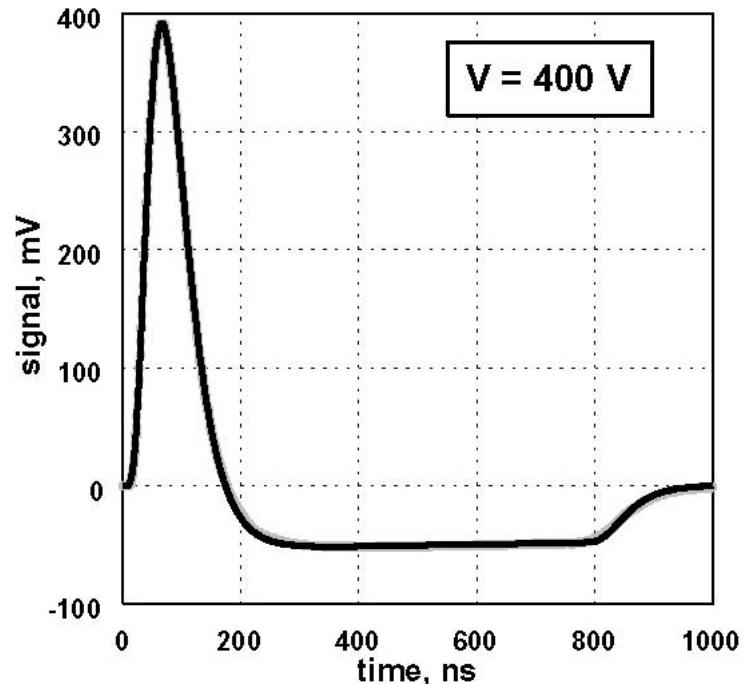
4 samplings
in depth

HEC beam test setup



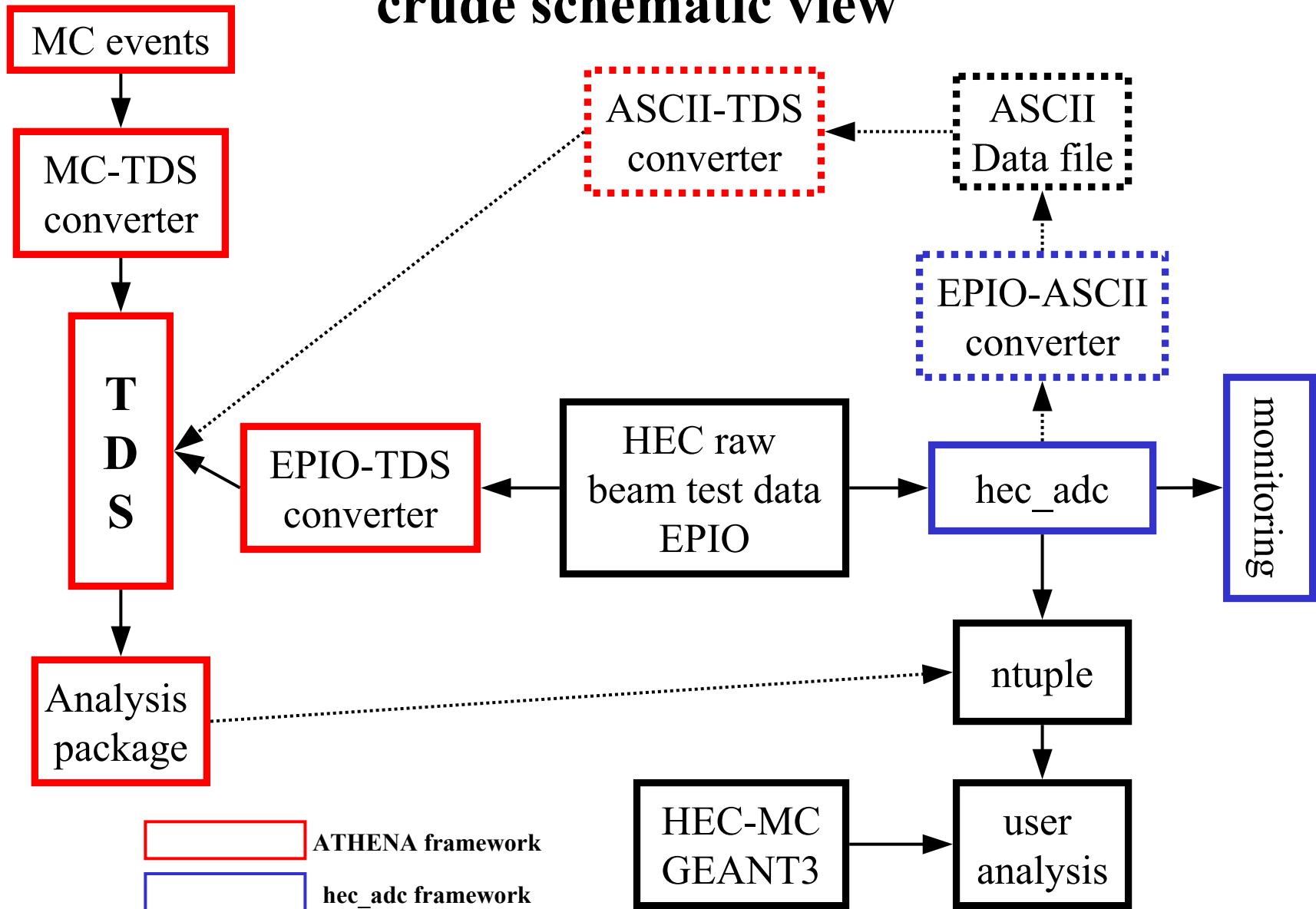
First sampling cell map

LSEG 1



Signal shape sampled by FADC at 40MHz: time samples measured each 25ns in ADC units for each cell

HEC Beam Test Software crude schematic view



HEC Beam Test Software

A few analogies...

hec_adc

Athena

hec_adc.datacard

Job Options file

user_ini*.f

initialize()

user_evt*.f

execute()

user_ana*.f, user_ter.f

finalize()

Combined beam test: Athena-based code!!