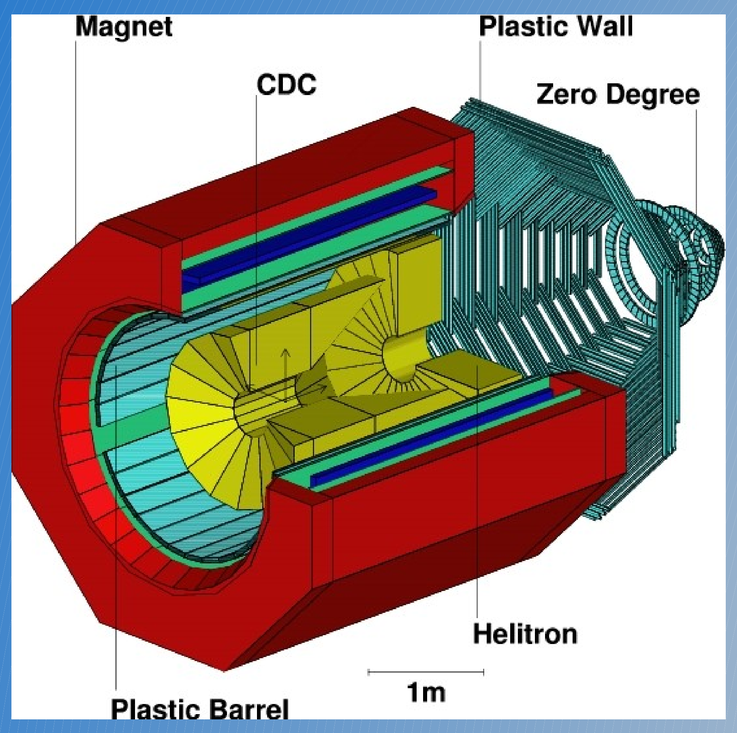
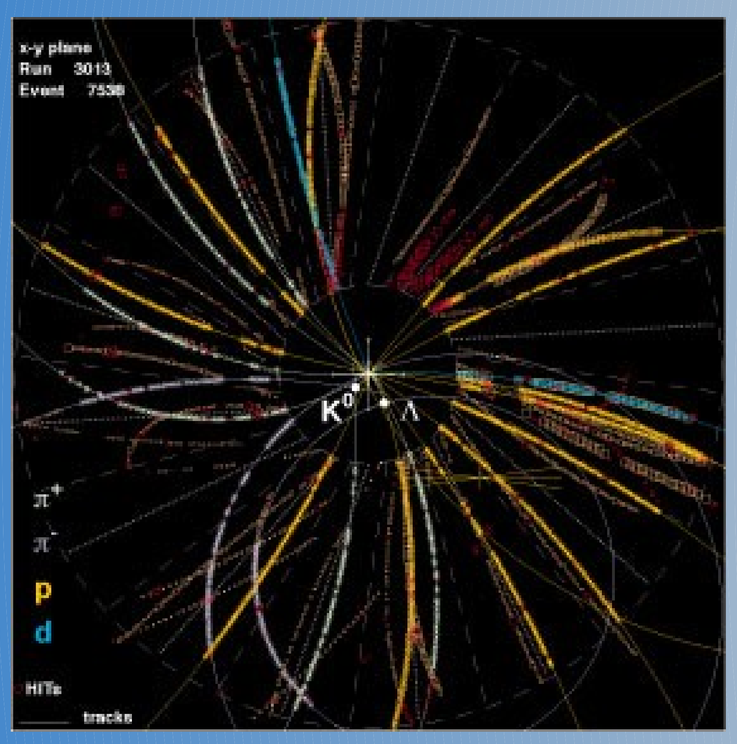
mini Forschung FOPI / CBM

construction of a novel silicon strip detector

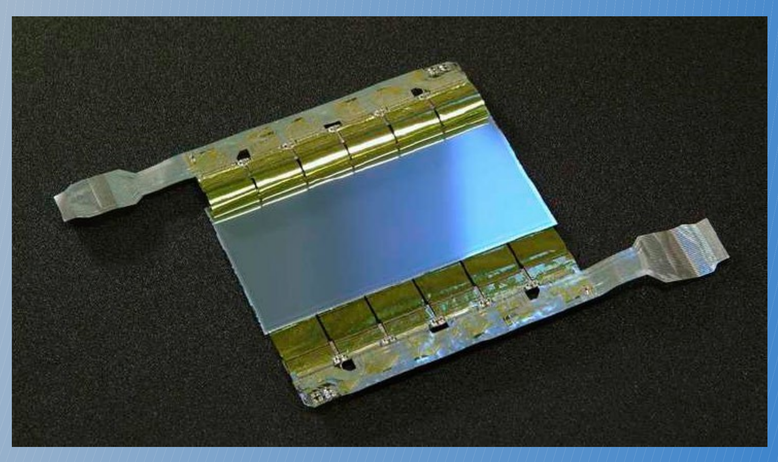


FOPI detector :
FOPI is a 4π Heavy-Ion detector located at the SIS accelerator facility at the GSI in Darmstadt. The hadron physics studied with the help of the FOPI detector covers for example determing the 'Equation of State' or the 'flow' of hadrons. Another field of research is the sub-threshold production of strange particles and more exotic forms of matter like hyper-nuclei or kaonic clusters.



Pion beam experiment :
The purpose of the pion beam experiment is to measure the cross-section of the reaction
$\pi + A \rightarrow K^0 \Lambda + X$ at 1.2 GeV beam energy. Comparing different targets, this study is expected to give a clean signature of the so called in medium effects at normal hadronic density.

The task :
For an upcoming pion beam experiment, a silicon micro-strip detector used as a beam tracker is being build at the Physikalisches Institut. This detector has to be assembled and the existing readout electronics has to be build and commissioned.



Possible objectives :
- programming in C and VHDL
- test and characterization of the detectors
- development of hardware
- participation in a test experiment 09/08

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