

Agenda

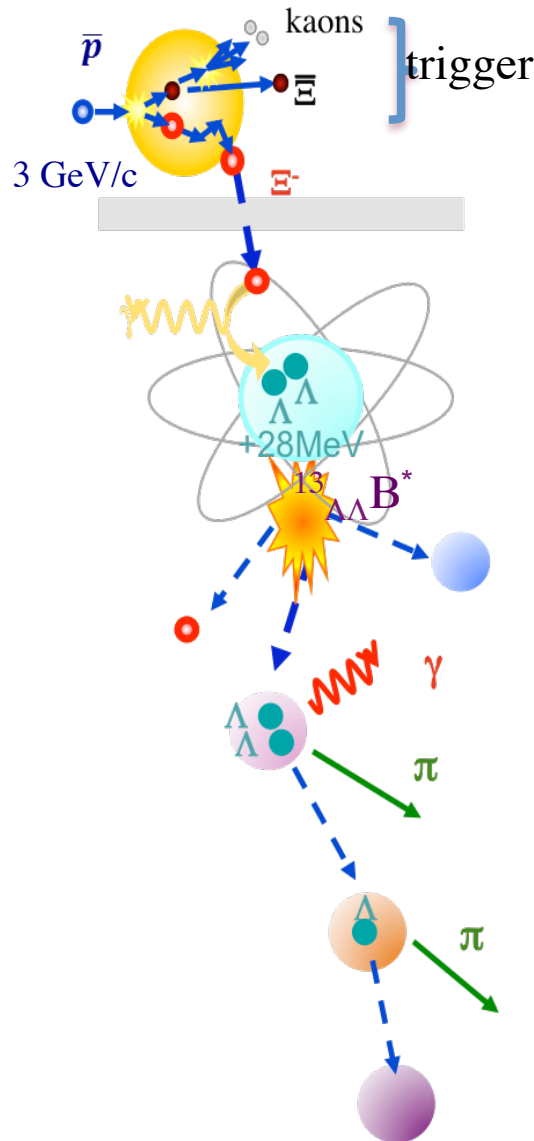
Hypernuclei Session

Report on the Hypernuclear Target system

Status report on the HPGe cluster Array

Discussion

$\Lambda\Lambda$ - Hypernuclei at PANDA



in a primary target

\Rightarrow Slowing down, capture
and conversion of Ξ



in a secondary active target.

\Rightarrow Statistical decay of
slightly excited hypernuclei

\Rightarrow Electromagnetic transition
to g.s

\Rightarrow Sequential mesonic decay

Need of a devoted detector
setup

Hypernuclear Detector Setup

⊙ Integration in the PANDA spectrometer

- Space constraints
- High magnetic field
- Large hadronic background

⊙ Physics Performance

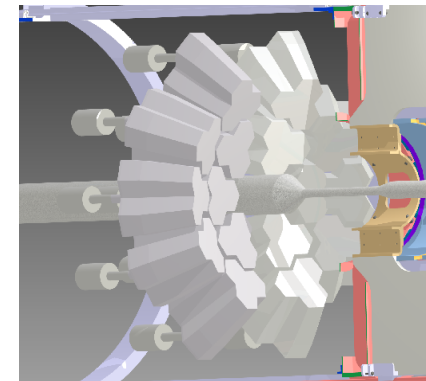
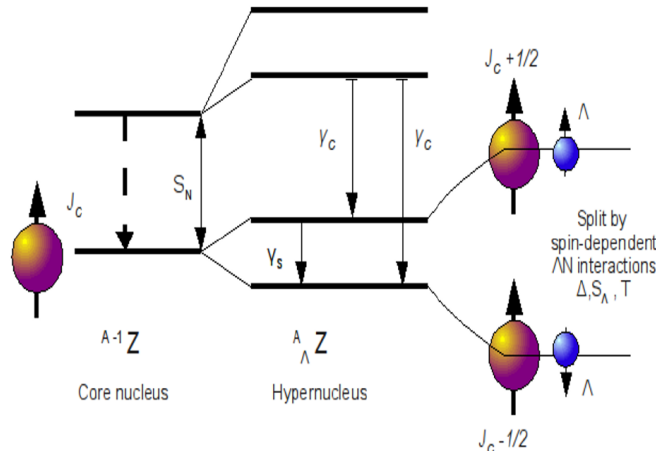
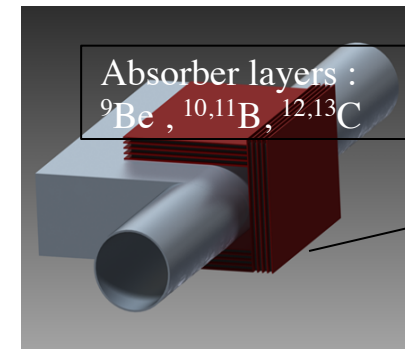
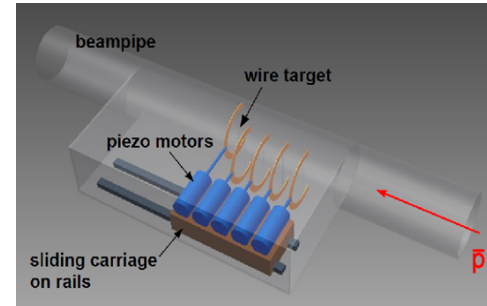
- **The primary target :**

production of slow momentum Ξ^-

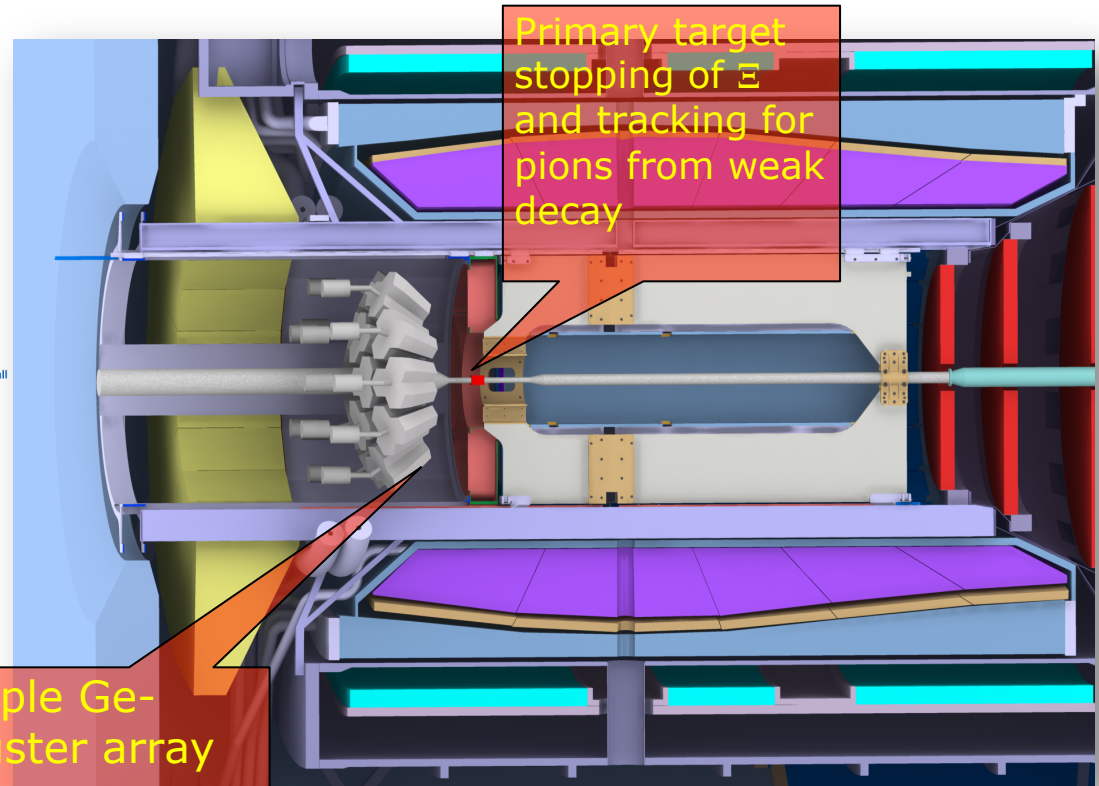
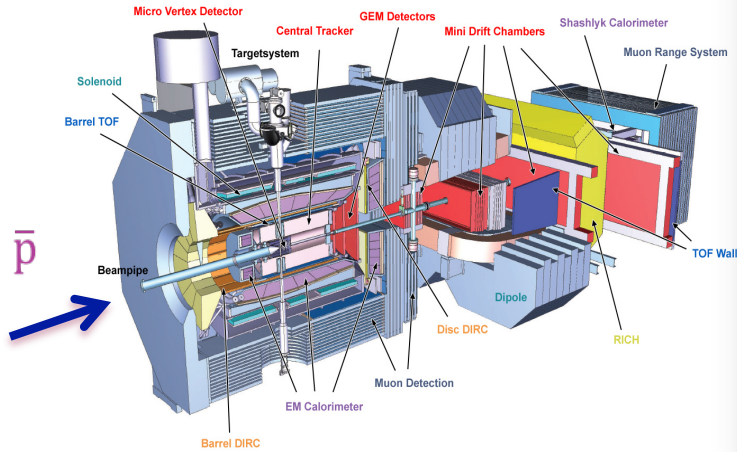
- **The Secondary Active target :**

Stopping of Ξ^- , and detection of charged decay products (monoenergetic π^-)

- **The HPGe Array :** high precision γ detection



Integration in PANDA



Backward End Cap Calorimeter
and MVD will be removed

- ⊙ Modular structure
- ⊙ Dedicated beam pipe/target system

*by courtesy of D. Rodriguez,
M. Steinen,*