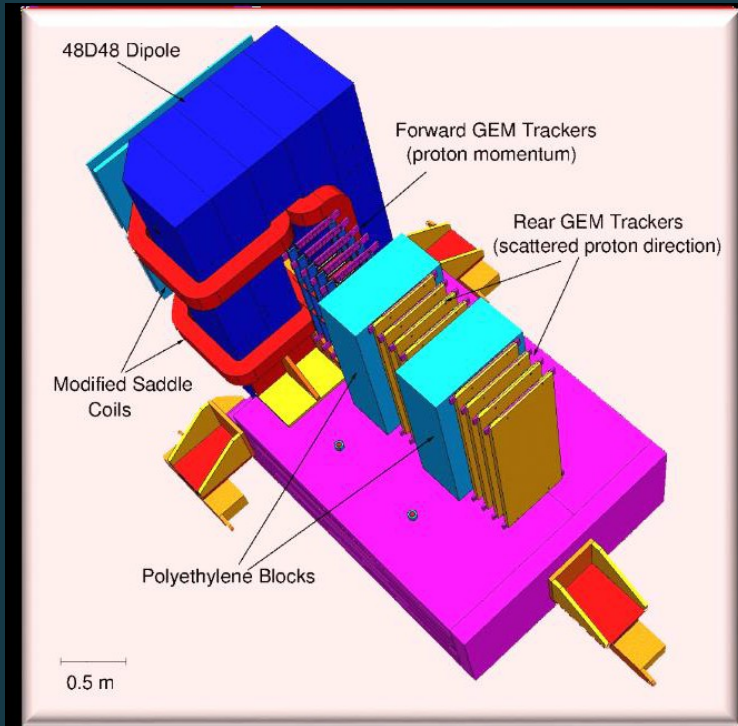


JLAB2

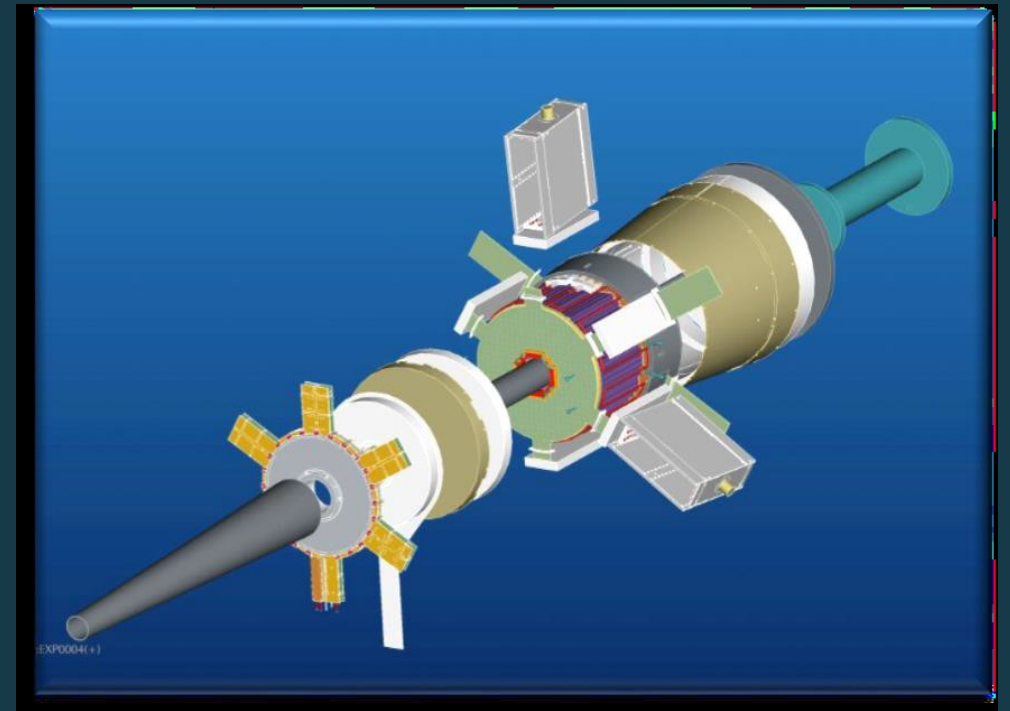


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JLAB1

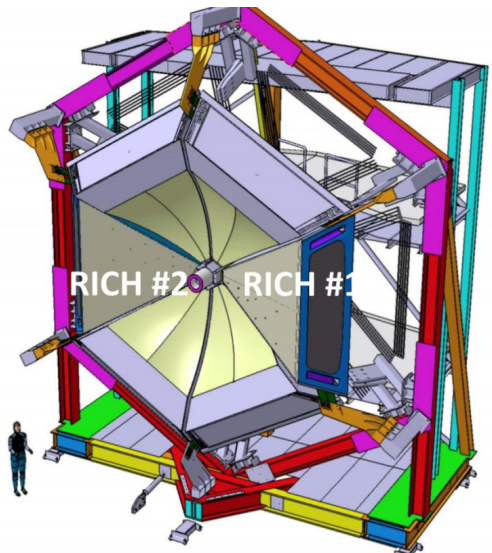


Super BigBite Spectrometer
Hall A



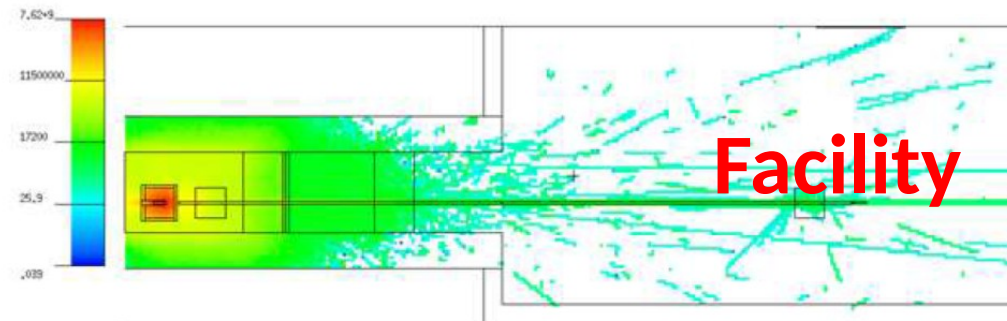
Forward Tagger Clas 12
Hall B

CLAS12 upgrade - detecting the strange



- High luminosity trigger/analysis R&D
- Interface with IRIS/GRID

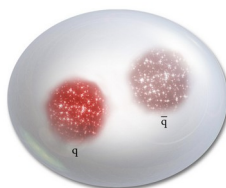
Creating the strange - new Kaon beam facility



- Piggy backs CPS@JLAB developments reach deep into the strange sector
- Construct UK equipment (flux monitor)

JLAB2

Measuring the strange - Kaon FFs

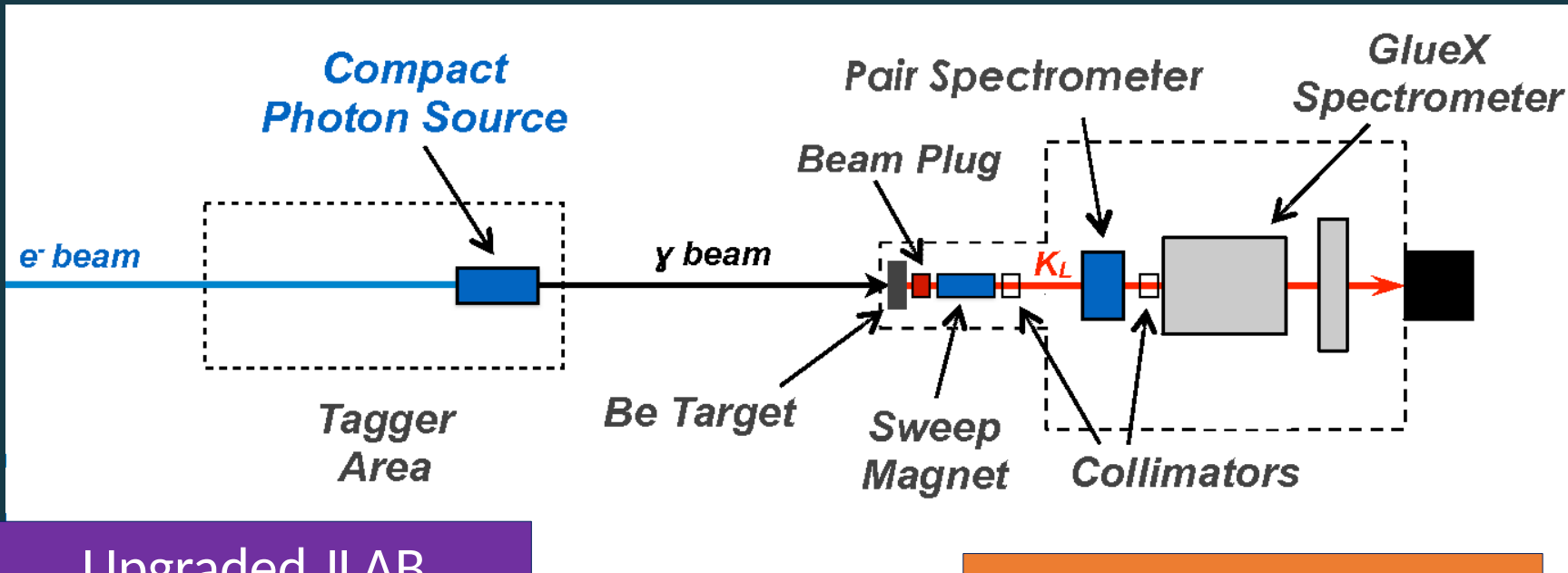


- Measure Kaon (and pion) FFs
- Hard scattering from meson cloud on nucleon
- High rate recoil tagging - GEM mTPC

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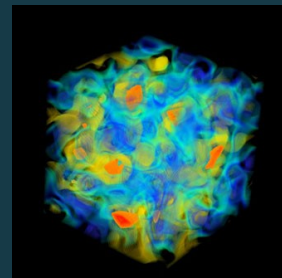
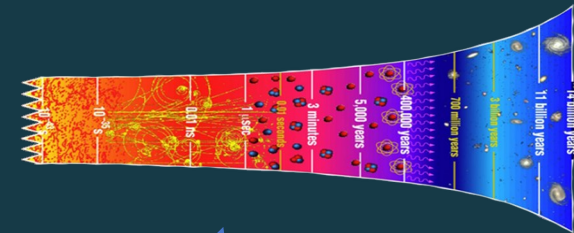


EM induced strange hadron beams



Upgraded JLAB
- one of the world's
most intense
particle beams

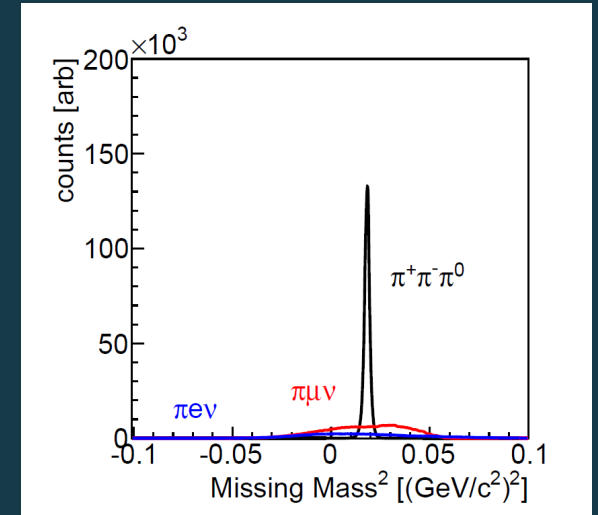
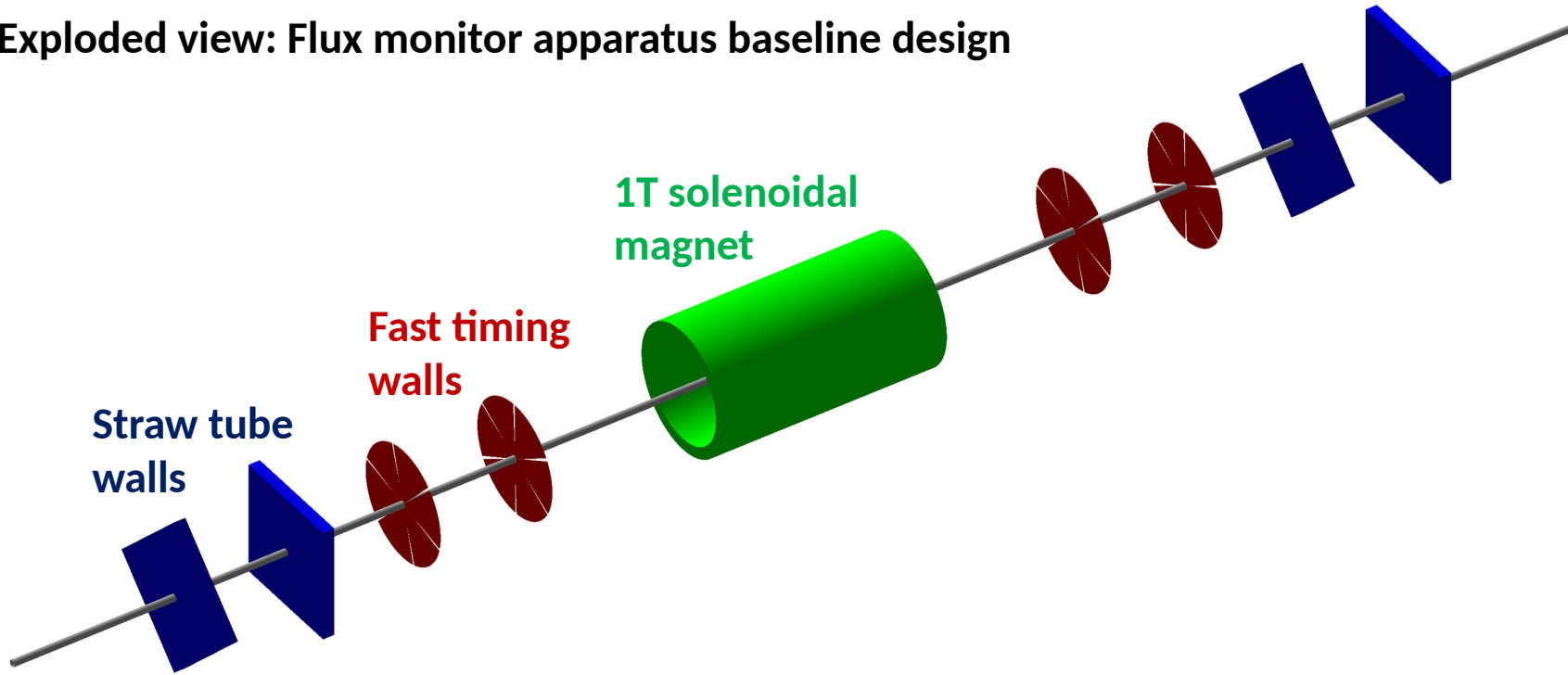
Next generation clean
and intense *strange*
hadron beam



- Rapidly developing collaboration - over 30 institutions (EU, US, China, Russia)
- Establish all excited states of Λ , Σ , Ξ , Ω for Mass up to 2.4 GeV, mesons, strange exotica, ..
- Strong UK leadership [e.g. York Co-PI], simulation studies, Kaon flux monitor R&D

Klong beam flux monitor

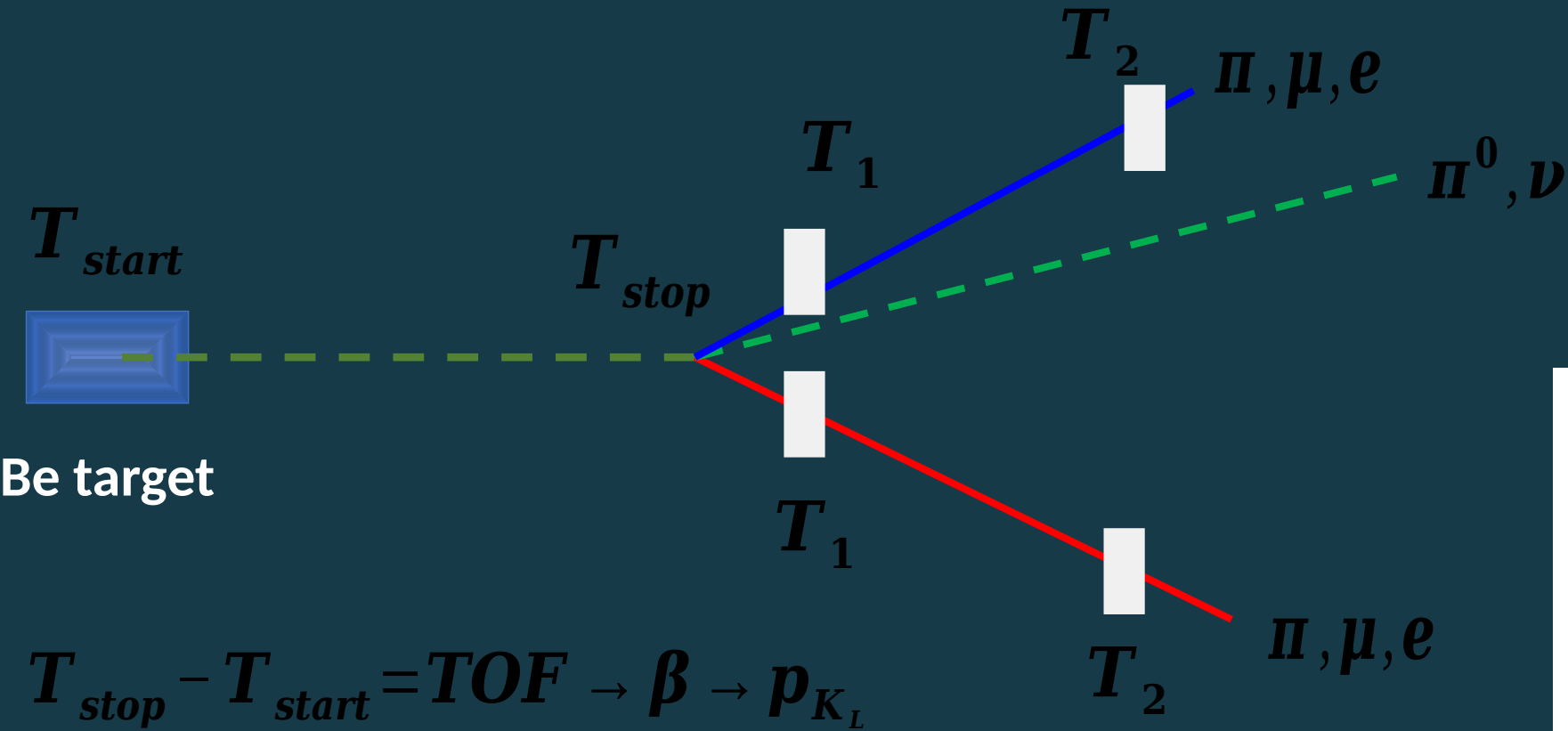
Exploded view: Flux monitor apparatus baseline design



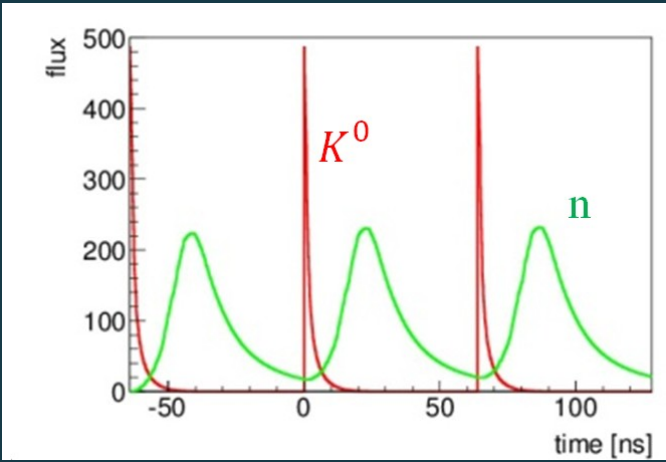
- Monitor beam spot and flux on target cell (1% accuracy)
- Tags fraction of beam decaying in flight



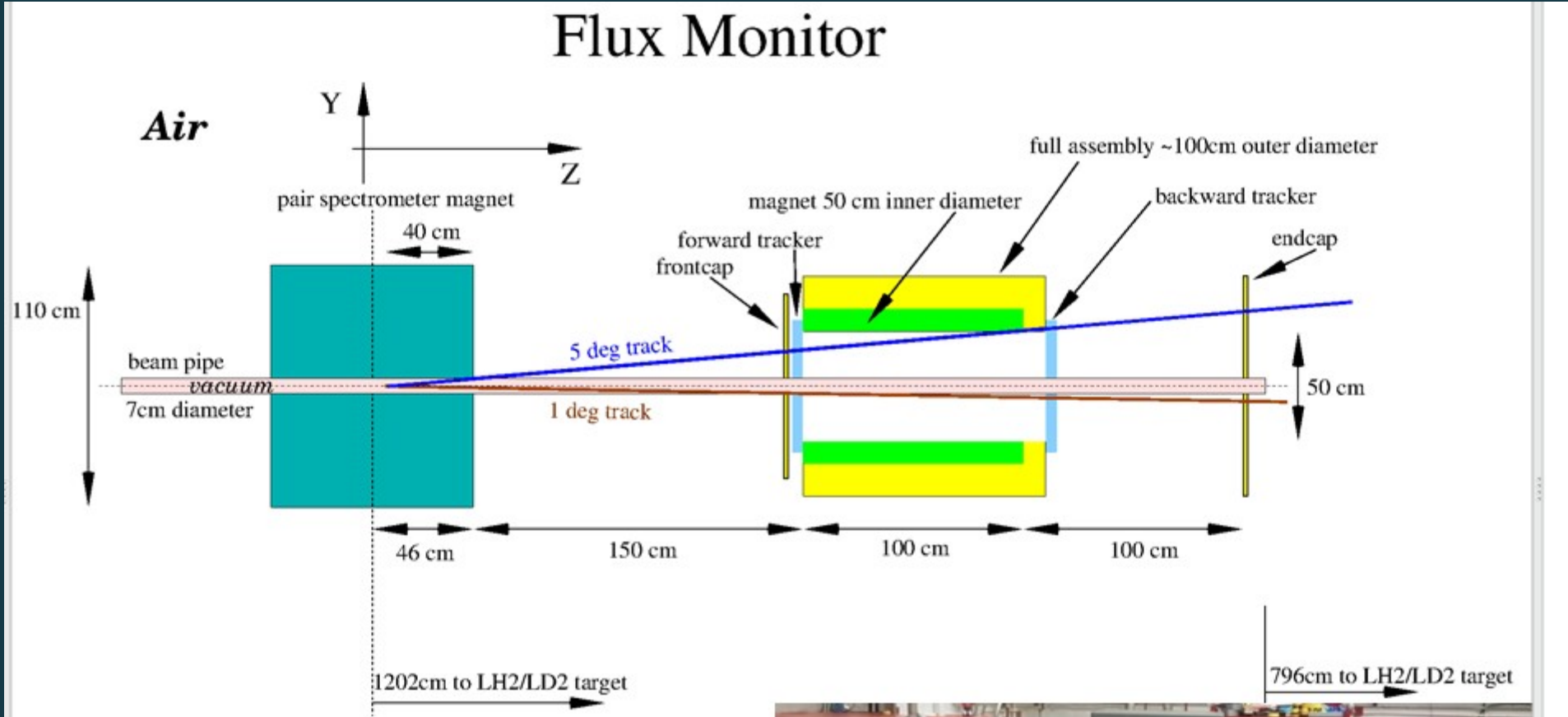
Flux monitor



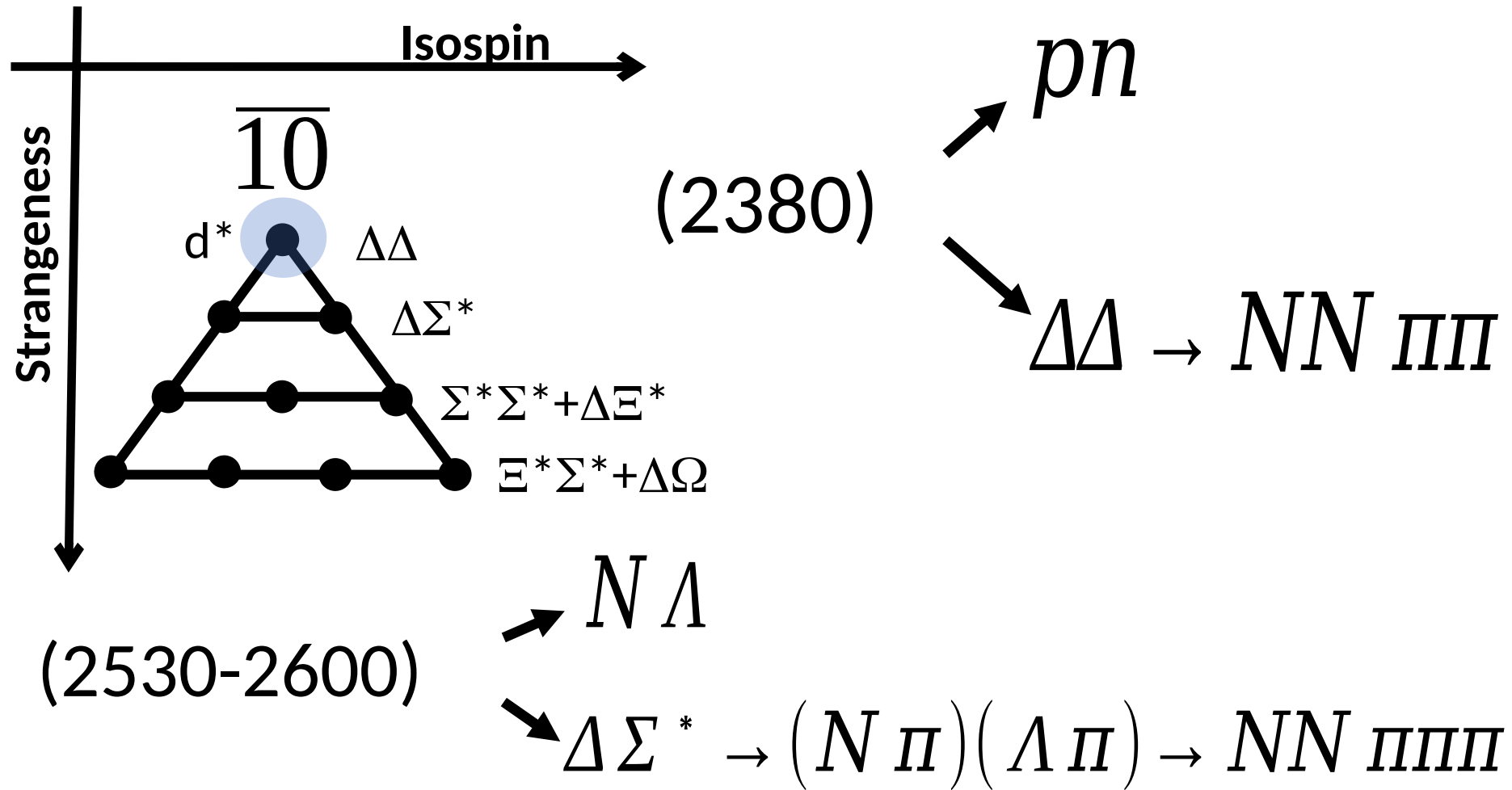
$$T_{stop} - T_{start} = TOF \rightarrow \beta \rightarrow p_{K_L}$$



Flux monitor



Strange Dibaryon decays





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