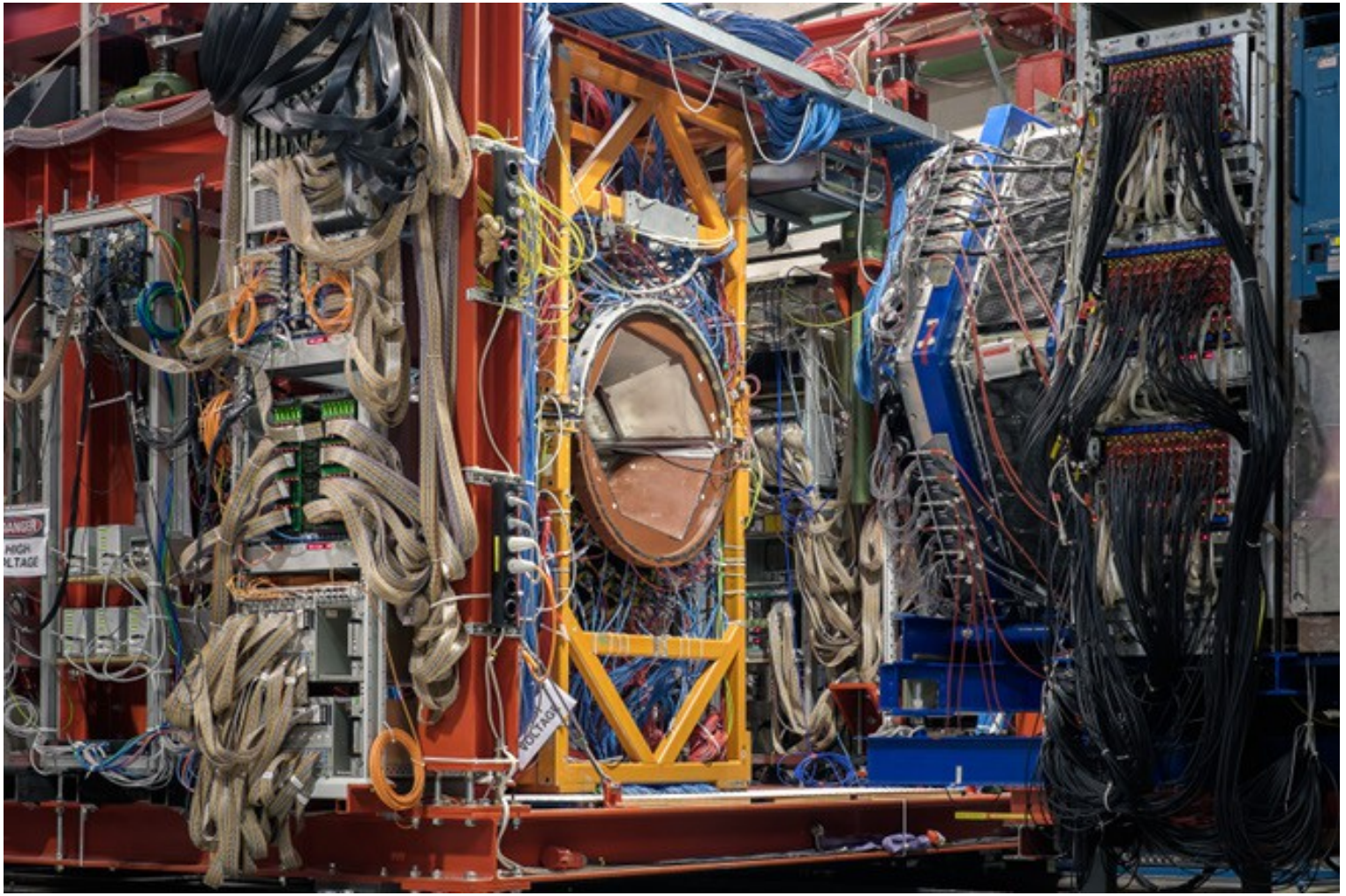
Seminar zur Vorstellung der Arbeitsgruppen

Institut für Kernphysik

Vahe Sokhoyan

10.12.2016



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- Contacts in Mainz: Prof. M. Ostrick, Prof. H. J. Arends, Prof. W. Gradl, Prof. A. Denig, Dr. C. Collicott, Dr. P. Martel, Dr. V. Sokhoyan, Dr. A. Thomas
- More information on the webpage: https://wwwa2.kph.uni-mainz.de/

Contributing institutions:

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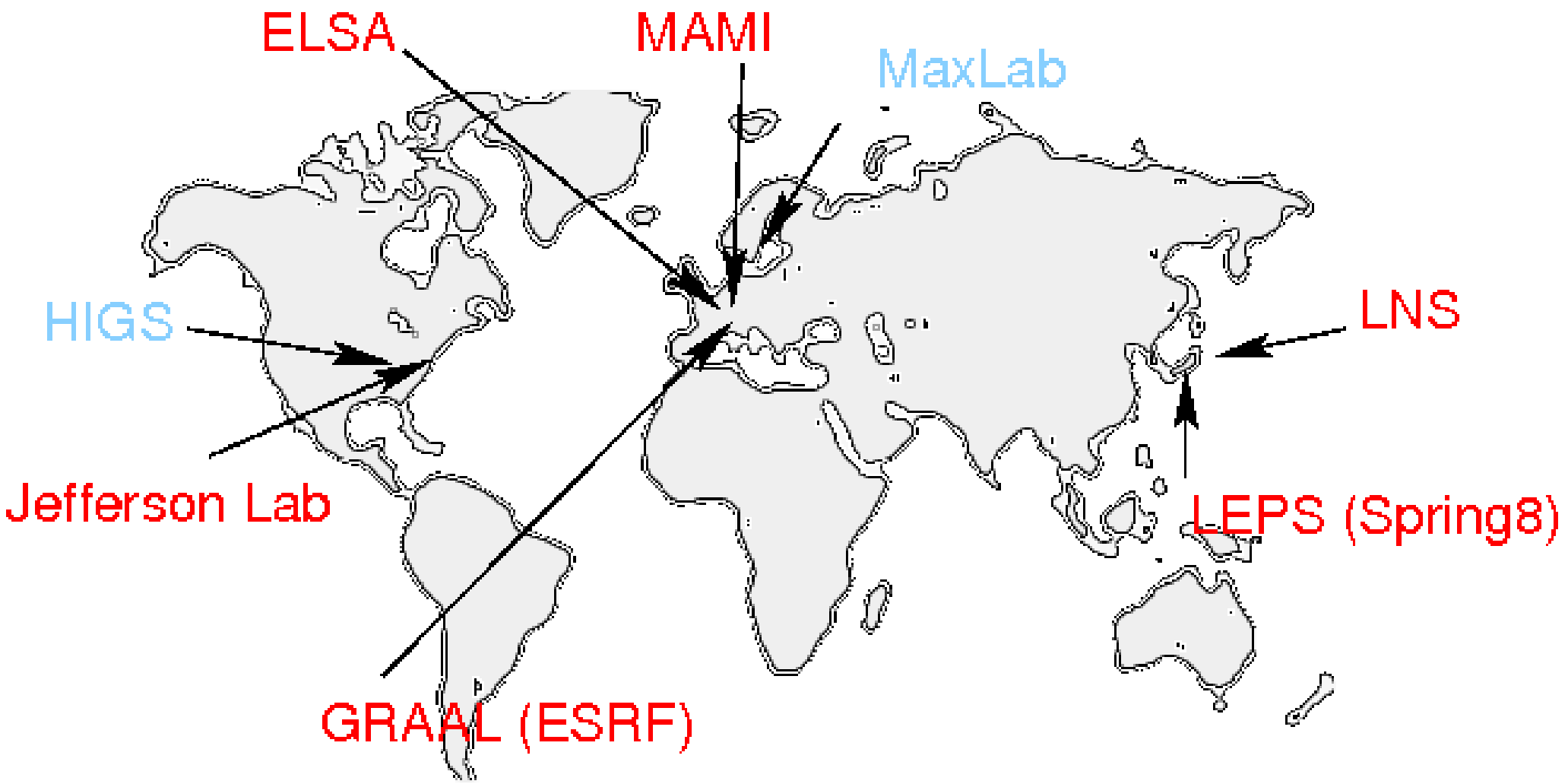
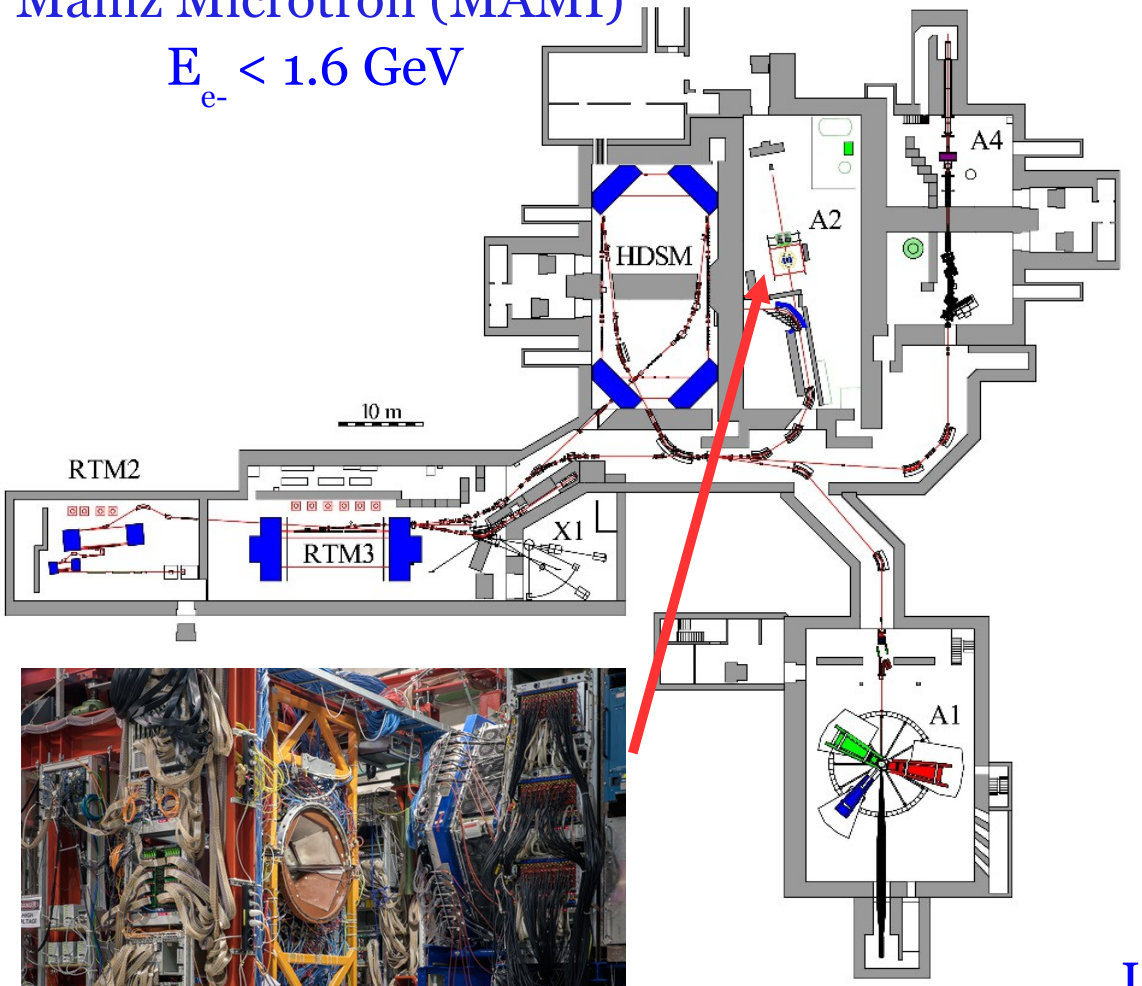
Experiments

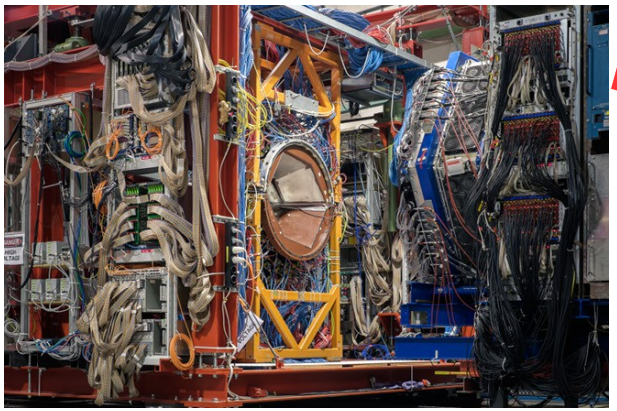


Experimental setup

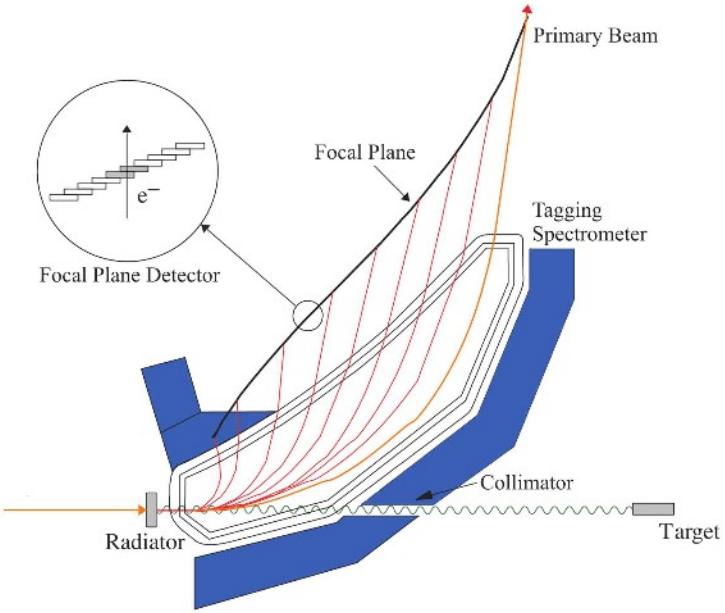
Mainz Microtron (MAMI)

$E_{e-} < 1.6$ GeV





Tagger/End point tagger

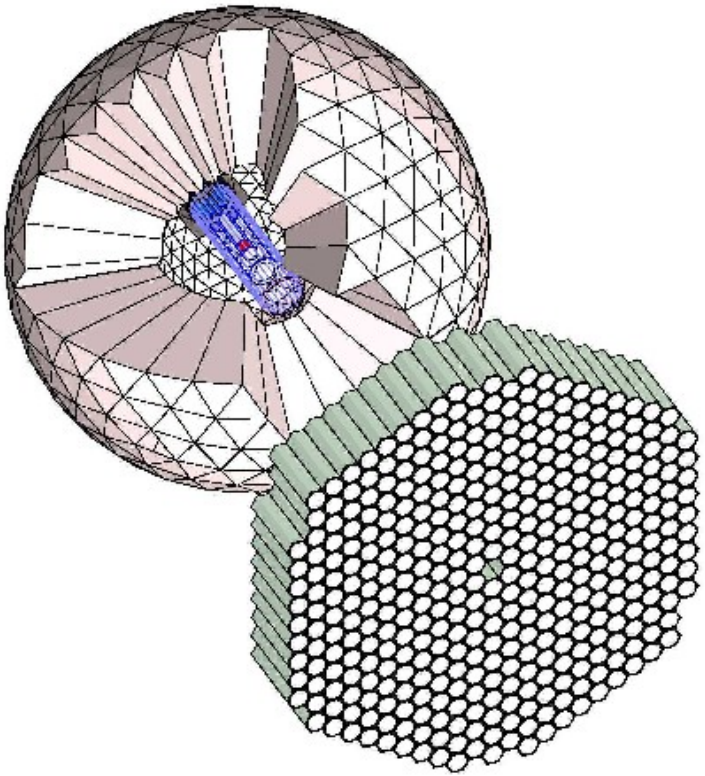


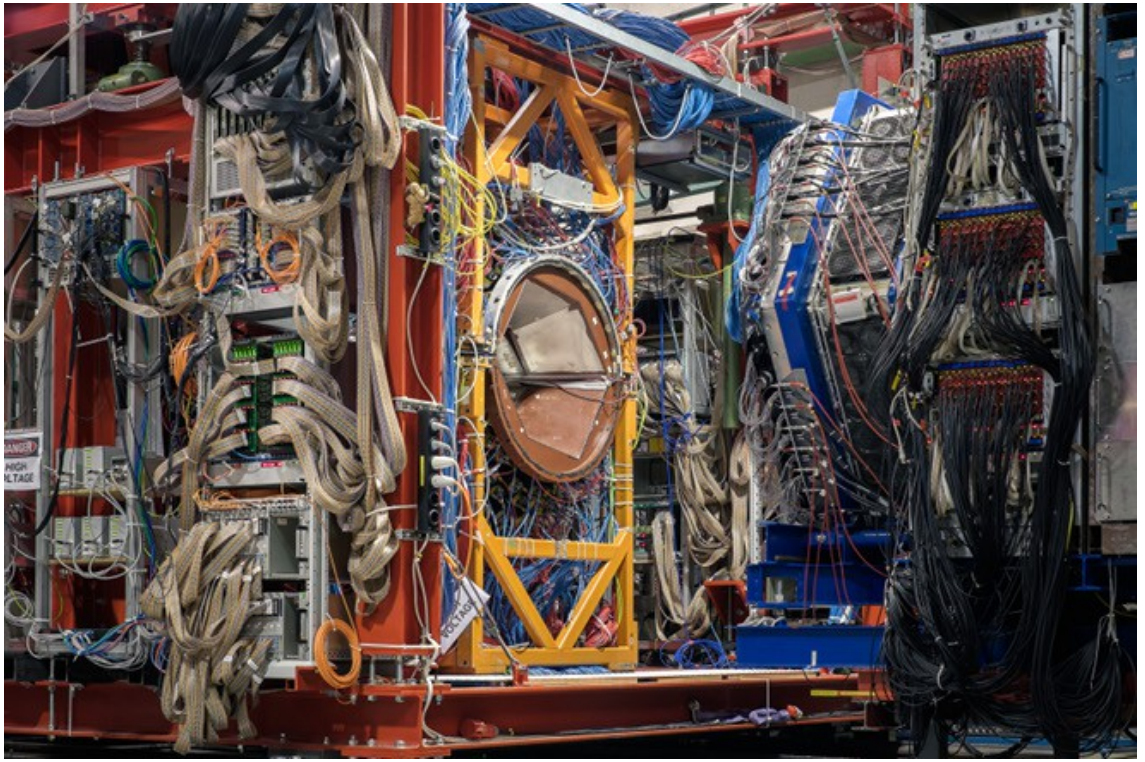
$$E_\gamma = E_{e-} - E_{tagg}$$

Upgrade → experiments with ~4 times higher rates will be possible!

- High-Flux, Tagged, Bremsstrahlung Photon Beam: Unpolarized, Linear, and Circular
- Polarized and Unpolarized Targets
- Active polarized target and active He gas target under development

Crystal Ball/TAPS experiment





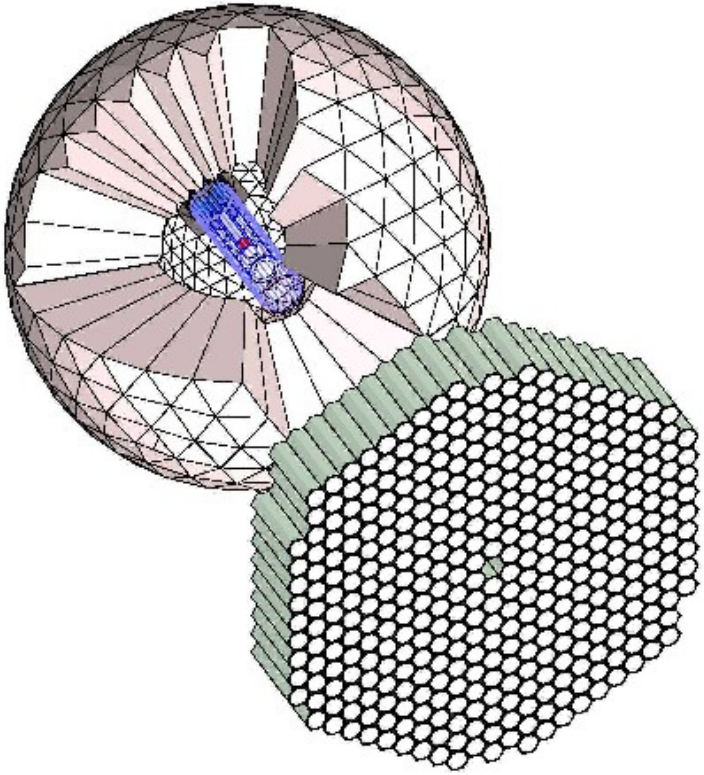
Crystal Ball:

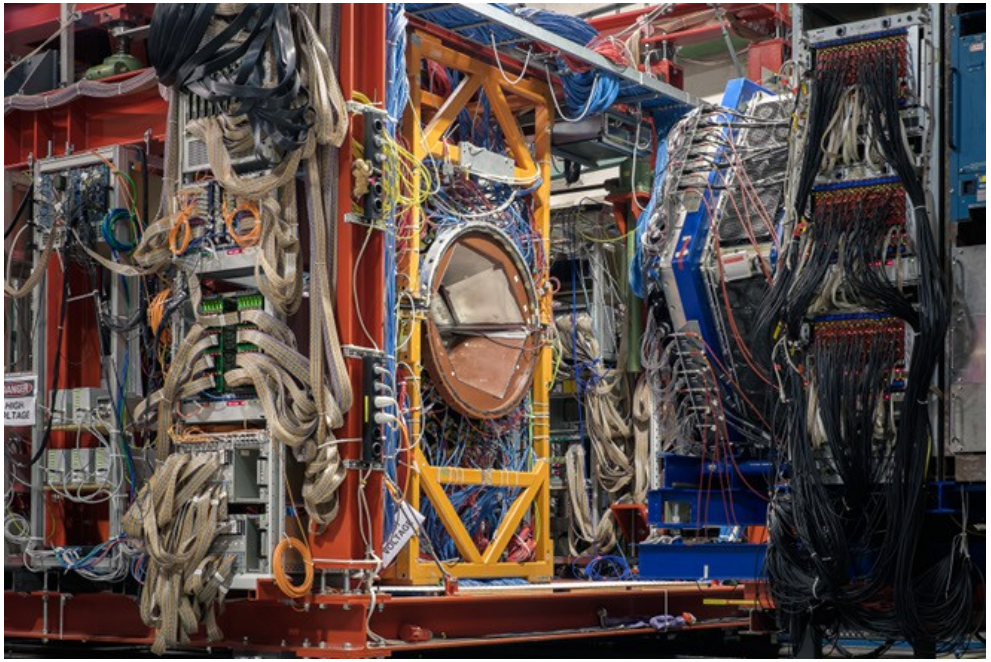
- 672 NaI Crystals
- 24 Particle Identification Detector Paddles
- 2 Multiwire Proportional Chambers

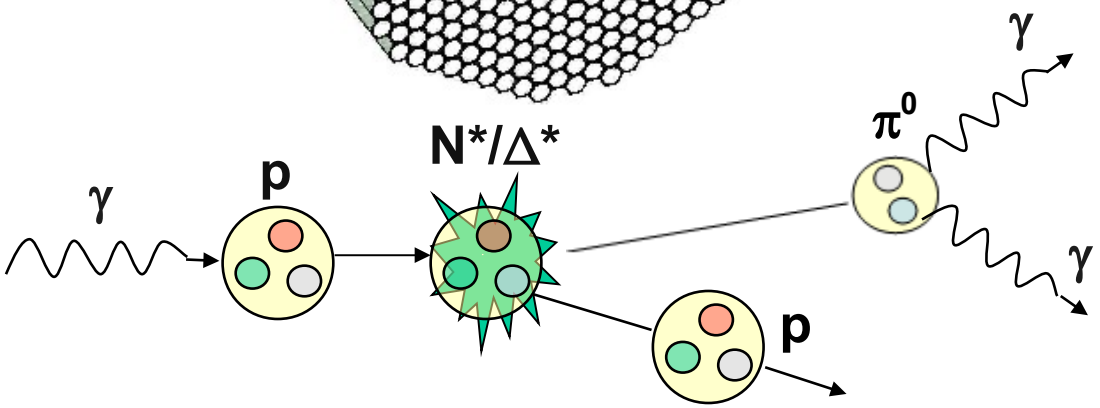
TAPS:

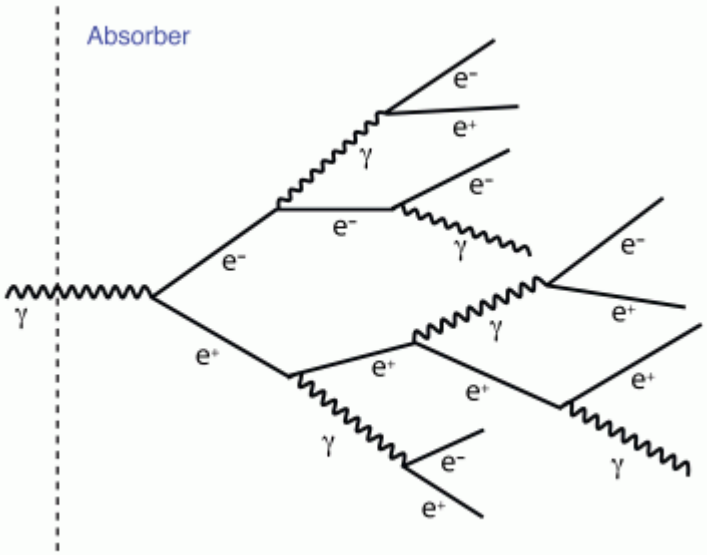
- 366 BaF_2 and 72 $PbWO_4$ Crystals
- 384 Veto Detectors

The CBELSA/TAPS experiment









Experiment where your contribution matters!

- Various tasks: Building modern particle detectors, working on hardware and electronics, running large-scale experiments, analyzing data from the Crystal Ball/TAPS experiment → big freedom in the choice of tasks

- Possibilities for B.Sc. And M.Sc. Theses

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Possible projects: contribution to the tagger upgrade (M. Ostrick), working on polarized cryogenic targets (A. Thomas), Analysis of the Compton Scattering data (V. Sokhoyan, P. Martel, C. Collicott) + other projects!

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Thank you for your attention!