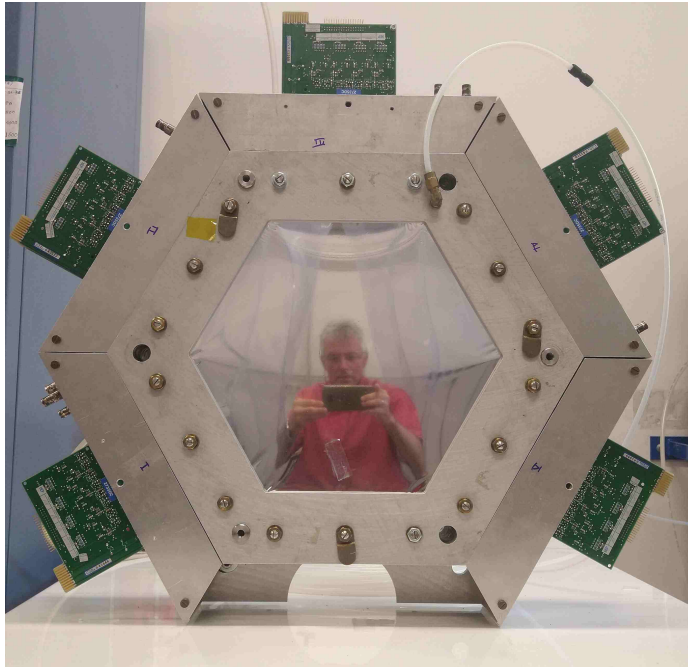
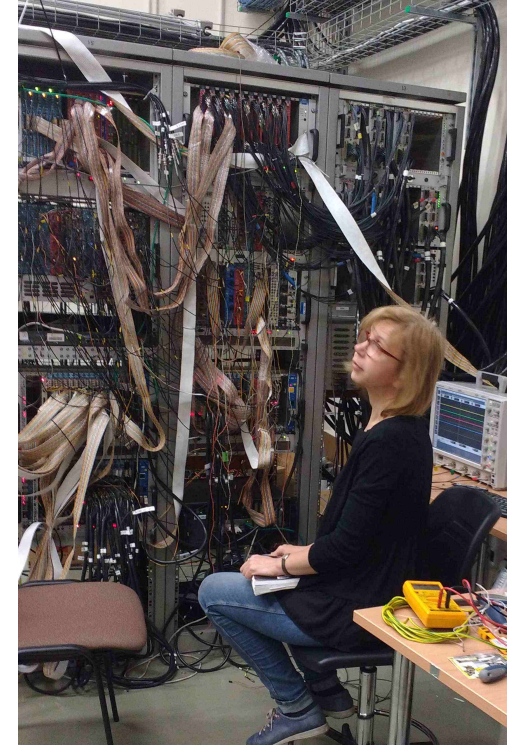


Needs for electronics in NZ24

Detectors

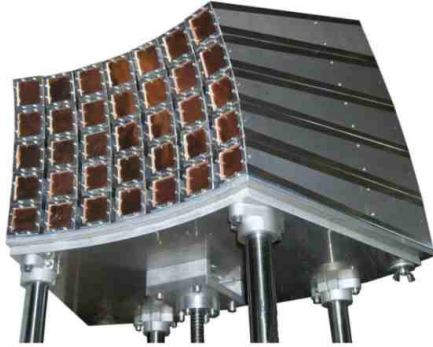


Data acquisition systems
(from commercially available parts)



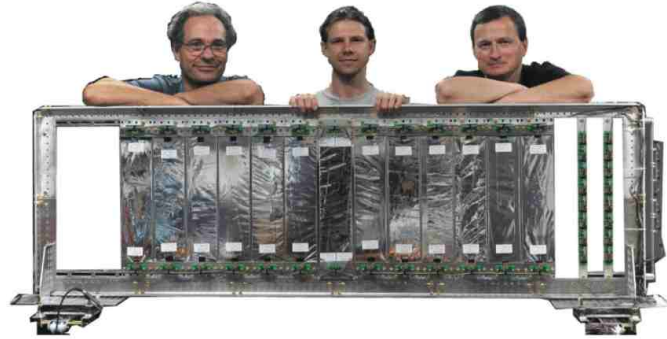
Custom-made
electronics

KRATTA



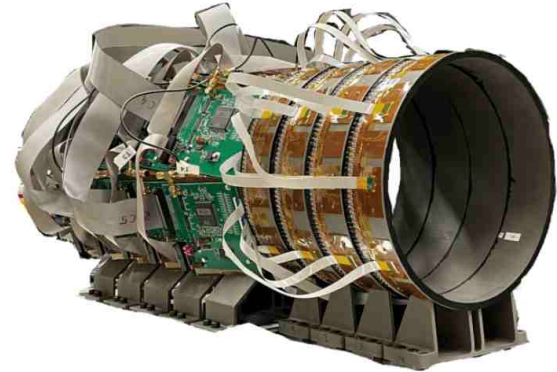
- Full front-end electronics for
 - Scintillator hodoscopes 3x35 channels
 - Preamps, + power supplies
 - Light readout by Si photodiodes
 - Modular design
- Made at IFJ electr. Lab:
 - Z. Sosin, P. Lasko, P. Pawłowski
 - 2+ years

KATANA



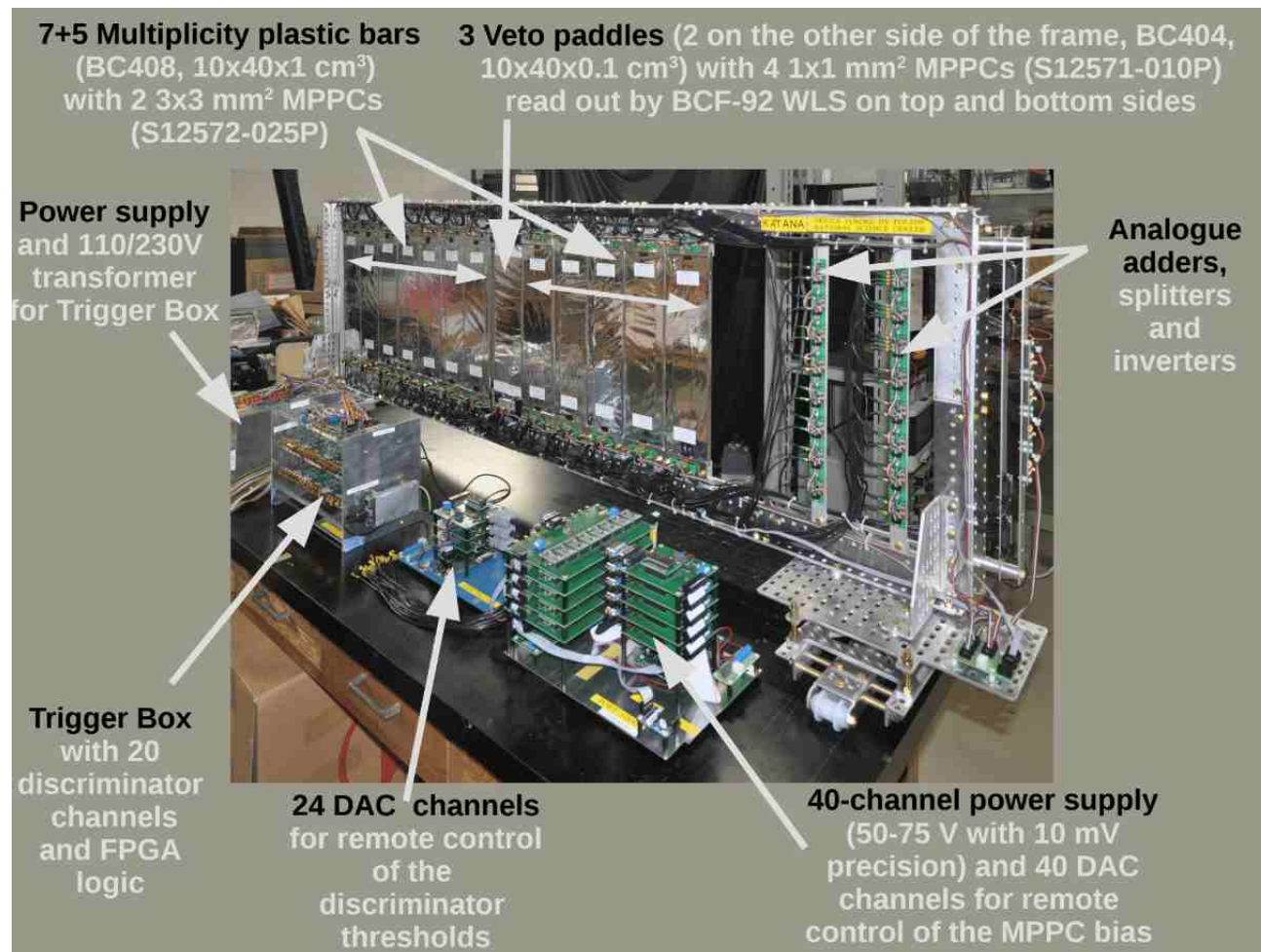
- Full front-end electronics for
 - Plastic Wall 36 channels
 - Preamps, discriminators + thresholds, powersupplies
 - Advanced trigger logic FPGA
 - Light readout by WLS-fibers + MPPCs
 - Modular design
- Made at IFJ electr. Lab:
 - P. Lasko, P. Pawłowski, Z. Sosin, M. Adamczyk, K. Pelczar
 - 2+ years

KRAB

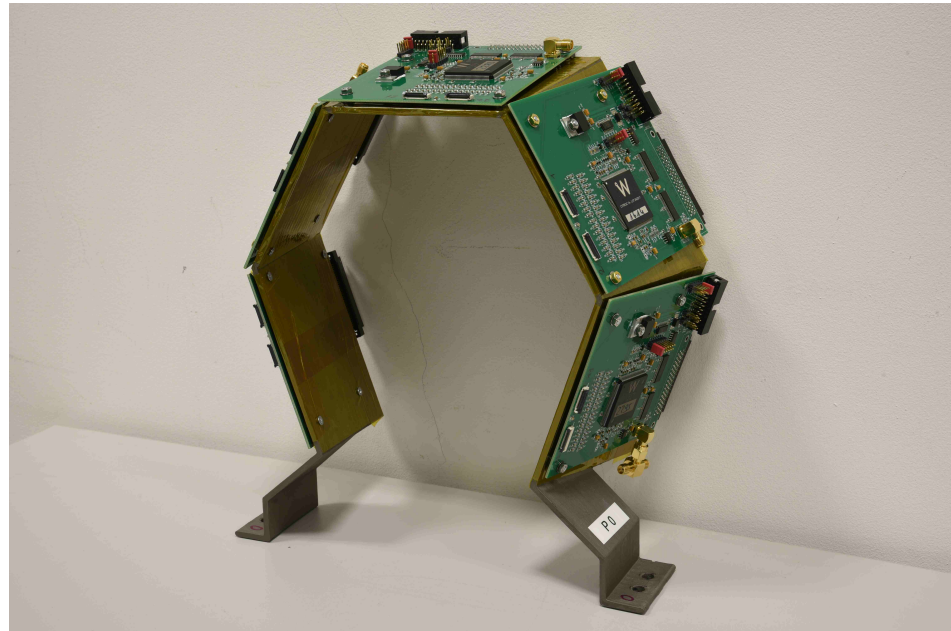
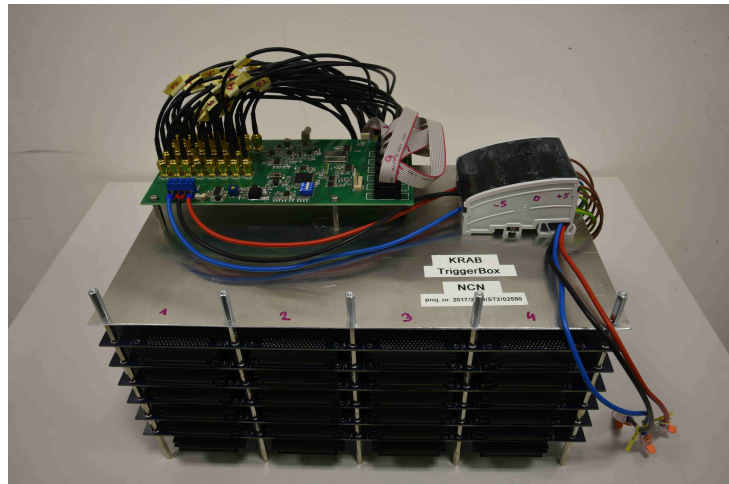
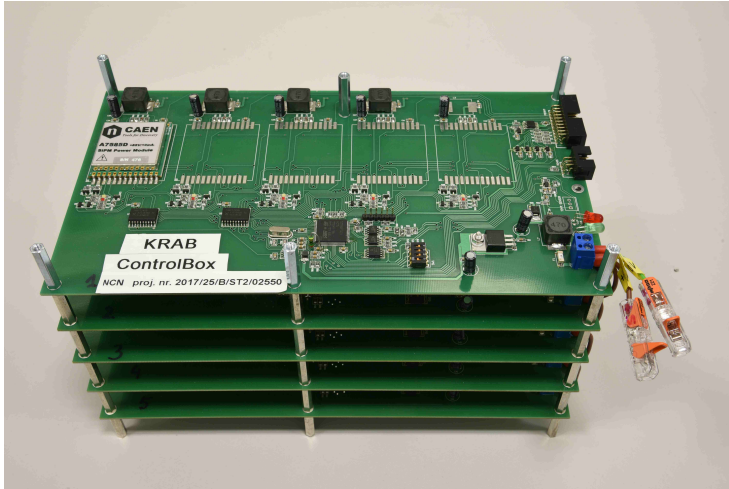


- Full front-end electronics for
 - Fast Multiplicity Trigger, 732 channels
 - CITIROC steering board
 - Advanced trigger Box (FPGA)
 - Control box
 - Light readout by SiPMs
 - Modular design
- Made at IFJ electr. Lab:
 - K. Lojek, P. Lasko, K. Szczepaniec, P. Pawłowski
 - 3+ years

KATANA



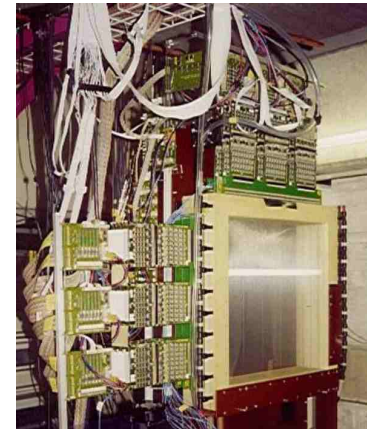
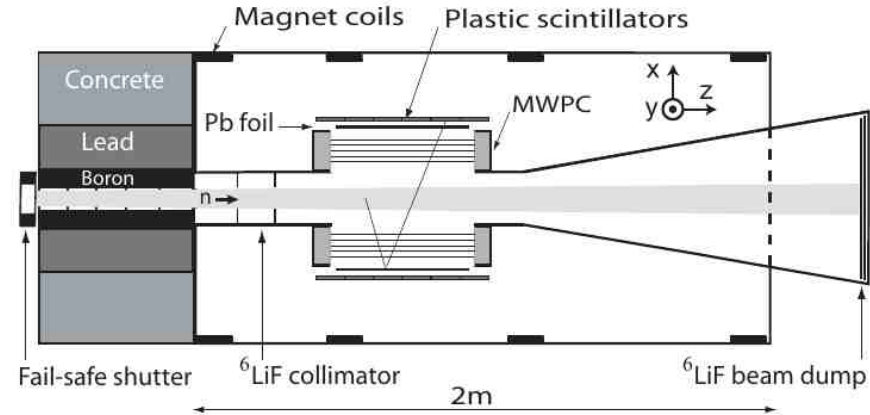
KRAB



Experiment nTRV (SINQ@PSI + ETH)

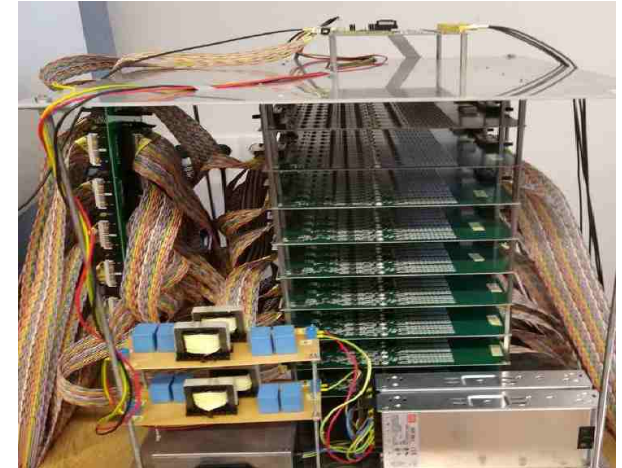
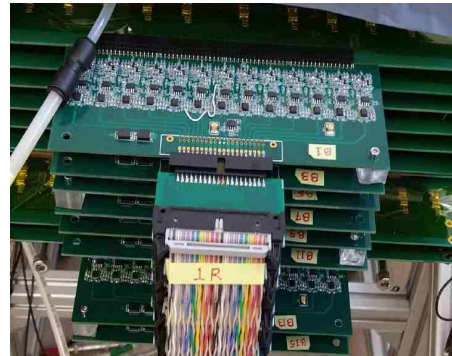
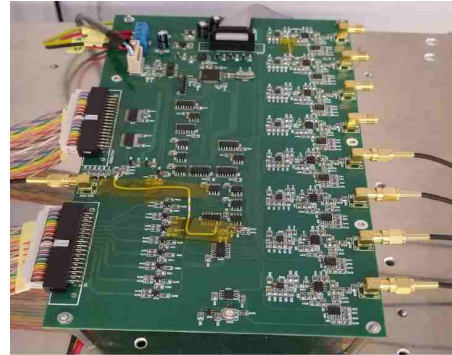
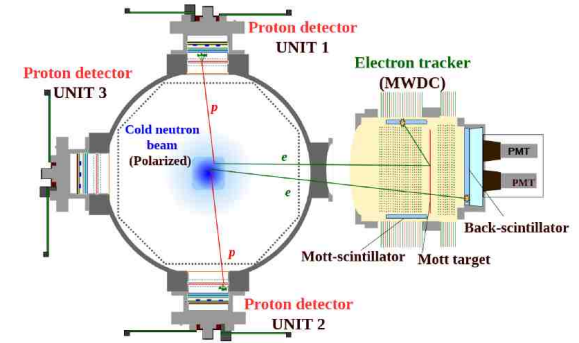
- Full front-end electronics for
 - Proportional Chambers 576 channels
 - Scintillator hodoscopes 24 PM channels
 - Preamps, discriminators + thresholds
 - Advanced trigger logic
 - Modular design
- Made at ETH electr. Lab:
 - 2 electricians + 1 PHD student
 - 3+ years

1st measurement of R & N correlation
Coefficients in free neutron decay



Experiment BRAND

- Full front-end electronics for
 - Drift Chambers 256 channels
 - Scintillator hodoscopes 50 channels
 - Preamps, discriminators + thresholds
 - Advanced trigger logic
 - Modular design
- Made at UJ electronic Lab:
 - K.Lojek (UJ) + 1 PHD student
 - 3+ years (not quite successful)



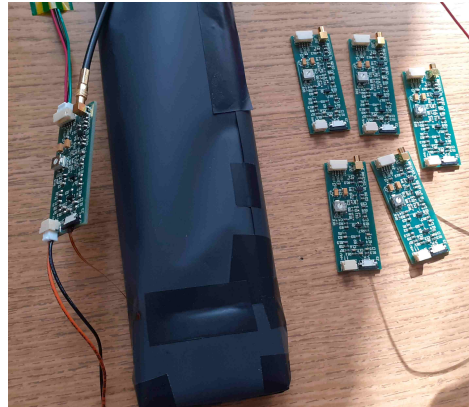
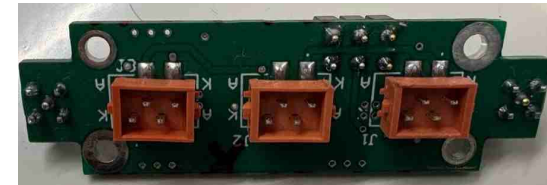
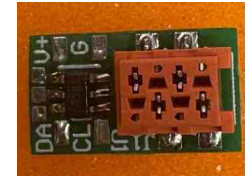
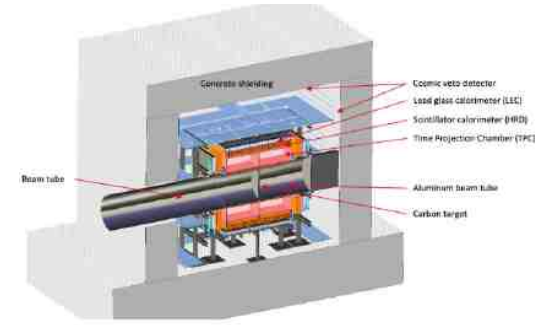
HIBEAM-NNBAR

- Cosmic Veto Detector

- Ultimately ~2500 detector channels
- Decision between direct scintillator or Wave Length Shifter SiPM readout of staves
- Design of front-end for SiPS, integration to trigger decision logic and DAQ system

- External help (UJ)

- P.Lasko (UJ, ~4months) + 1 PHD student



Projekty bieżące

- HIBEAM-NNBAR
 - Optymalizowany odczyt i zasilanie SiPM, logika trygera, integracja z resztą systemu zbierania danych
- Metoda szybkiej diagnostyki wiązek hadronowych
 - Optymalizowany odczyt SiPM i zasilanie SiPM, transfer do PC
- BINA
 - Serwis kart wzmacniająco -dyskryminujących, dystrybucja zasilania i progów do wielodrutowych komór dryfowych

